A small portion of the Manhattan Site is located within the Preliminary Flood Insurance Rate Map (FIRM) 500-year floodplain, Zone X as shown in **Figure 4.1-4.** None of the site is within the current 100-year floodplain as mapped in either the Preliminary or Effective FIRM. Therefore, redevelopment of the Manhattan Site with a new building would not be required to implement the flood damage reduction measures of NYC Building Code Appendix G. As discussed in Policy 6.2 below, under the New York City Panel on Climate Change (NPCC)'s "high" (90 Percentile) sea level rise projections the 100-year floodplain may reach the project site by the 2080s. The proposed project at the Manhattan Site would incorporate adaptive strategies to provide resiliency to future flood conditions, as discussed in Policy 6.2 below. Therefore, the proposed project would promote this policy.

Policy 6.2: Integrate consideration of the latest New York City projections of climate change and sea level rise (as published by the NPCC, or any successor thereof) into the planning and design of projects in the city's Coastal Zone.

This evaluation, following guidance provided by DCP,[1] applies a detailed three-step process to determine the project's consistency with Policy 6.2.

1. Identify vulnerabilities and consequences: assess the project's vulnerabilities to future coastal hazards and identify what the potential consequences may be.

1(a). Complete the Flood Elevation Worksheet to identify current and future flood elevations in relation to the elevations of the site and project features.

Development plans for the Manhattan Site under the proposed project are preliminary and conceptual; detailed plans with elevations for specific features have not been developed. Therefore, flood evaluation worksheets have not been completed and this analysis provides a qualitative assessment based on expected future flood levels.

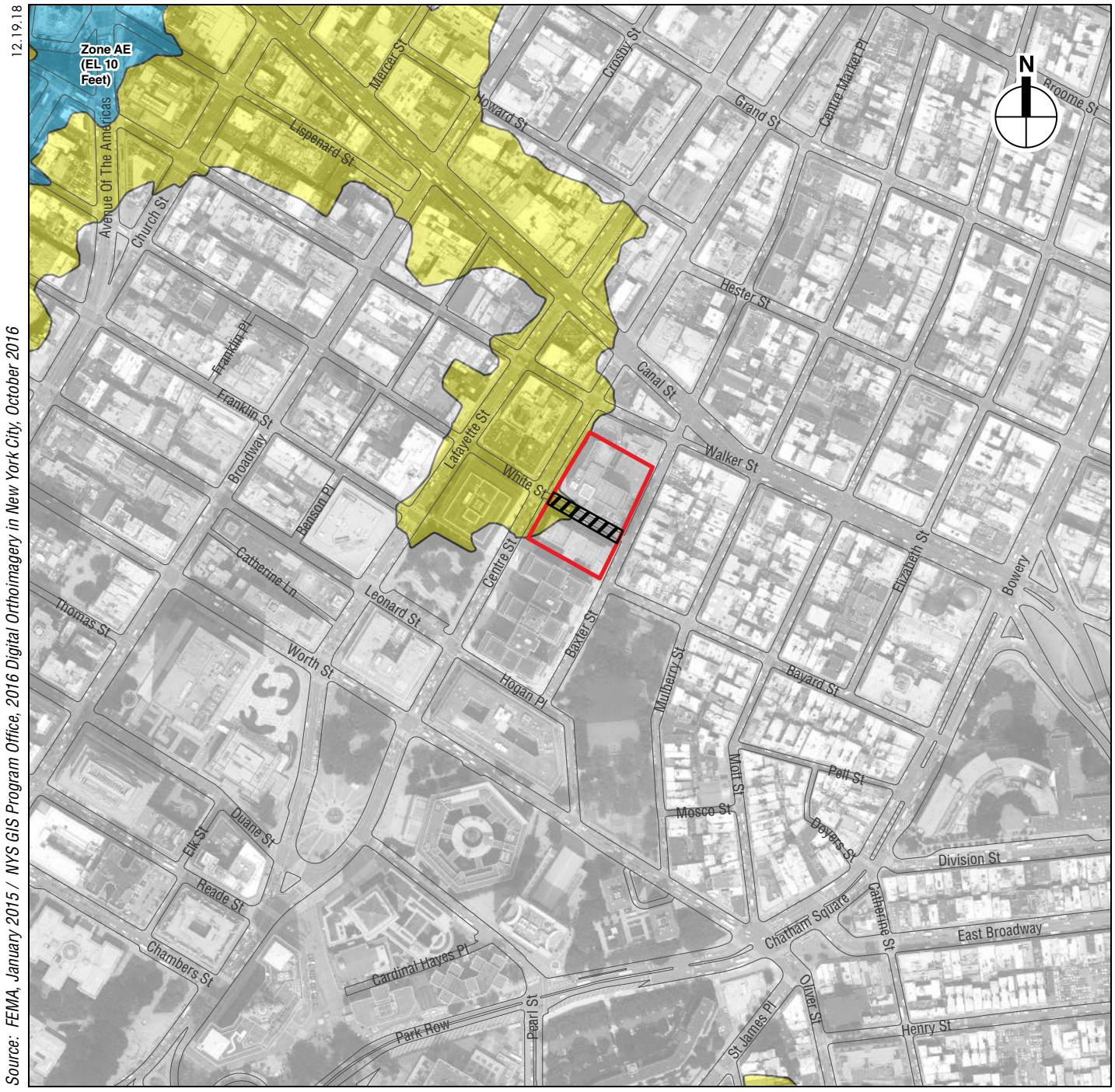
1(b). Identify any project feature that may be located below the elevation of the 1-Percent Floodplain over the lifespan of the project under any sea level rise scenario.

The lifespan of the proposed building at the Manhattan Site is assumed to be 80 years or more, and the lifespan of critical equipment, such as mechanical and electrical equipment, is 50 years. The following discusses the potential exposure of the proposed building's vulnerable features and critical features over these time frames.

Current 1-percent-annual-chance flood:

The proposed building at the Manhattan Site is currently not within the 100-year floodplain (the area subject to the 1-percent-annual-chance flood). As such, no elements of the proposed building would be subject to the provisions of the NYC Building Code Appendix G "Flood Resistant Construction", and the building's vulnerable and critical features would not be affected by the current 1-percent-annual-chance flood.

[1] DCP. Climate Change Adaptation Guidance, Guidance on Policy 6.2 of the New York City Waterfront Revitalization Program. March, 2017.



FEMA Preliminary FIRM 2015
Manhattan Site - 124/125 White Street

A small portion of the site is mapped within the Preliminary FIRM 500-year floodplain (the area subject to the 0.2-percent-annual-chance flood), for which flood heights are not provided, as shown in **Figure 4.1-4**.

Future 1-percent-annual-chance flood:

In the future, with projected sea level rise, the area subject to the 1-percent-annual-chance flood (100-year flood) and flood elevations are expected to increase. NPCC has projected that sea levels are likely to increase by up to 30 inches (2.5 feet) by the 2050s, 58 inches (4.8 feet) by the 2080s, and up to 75 inches (6.25 feet) by 2100 under the "high" (90th percentile) sea level rise projections.

As shown in **Figures 4.1-5 and 4.1-6**, the Manhattan Site could be affected by the 100-year flood by the 2080s assuming the NPCC's "high" (90th percentile) sea level rise projections. The closest 100-year floodplain for which flood elevations have been determined is a Zone AE (Prel. FIRM), located approximately 1,600 feet west of the project site, with a base flood elevation (BFE) of 10.0 feet (NAVD88). Assuming that this nearest existing BFE is applicable for the Manhattan Site itself, by the year 2080 this BFE may increase to an elevation of 14.8 feet based on the NPCC "high" (90th Percentile) sea level rise projection.

The lifespan of the proposed building at the Manhattan Site is assumed to be 80 years or more, and the lifespan of critical equipment, such as mechanical and electrical equipment, is 50 years. As noted above, development plans for the Manhattan Site under the proposed project are preliminary and conceptual; detailed plans with elevations for specific features have not been developed. However, it can be assumed that the building's lowest floor could contain vulnerable features (enclosed space for building staff, parking) and critical features (water/sewer pump rooms) that could be affected by future flood levels.

1(c). Identify any vulnerable, critical, or potentially hazardous features that may be located below the elevation of Mean higher High Water over the lifespan of the project under any sea level rise scenario.

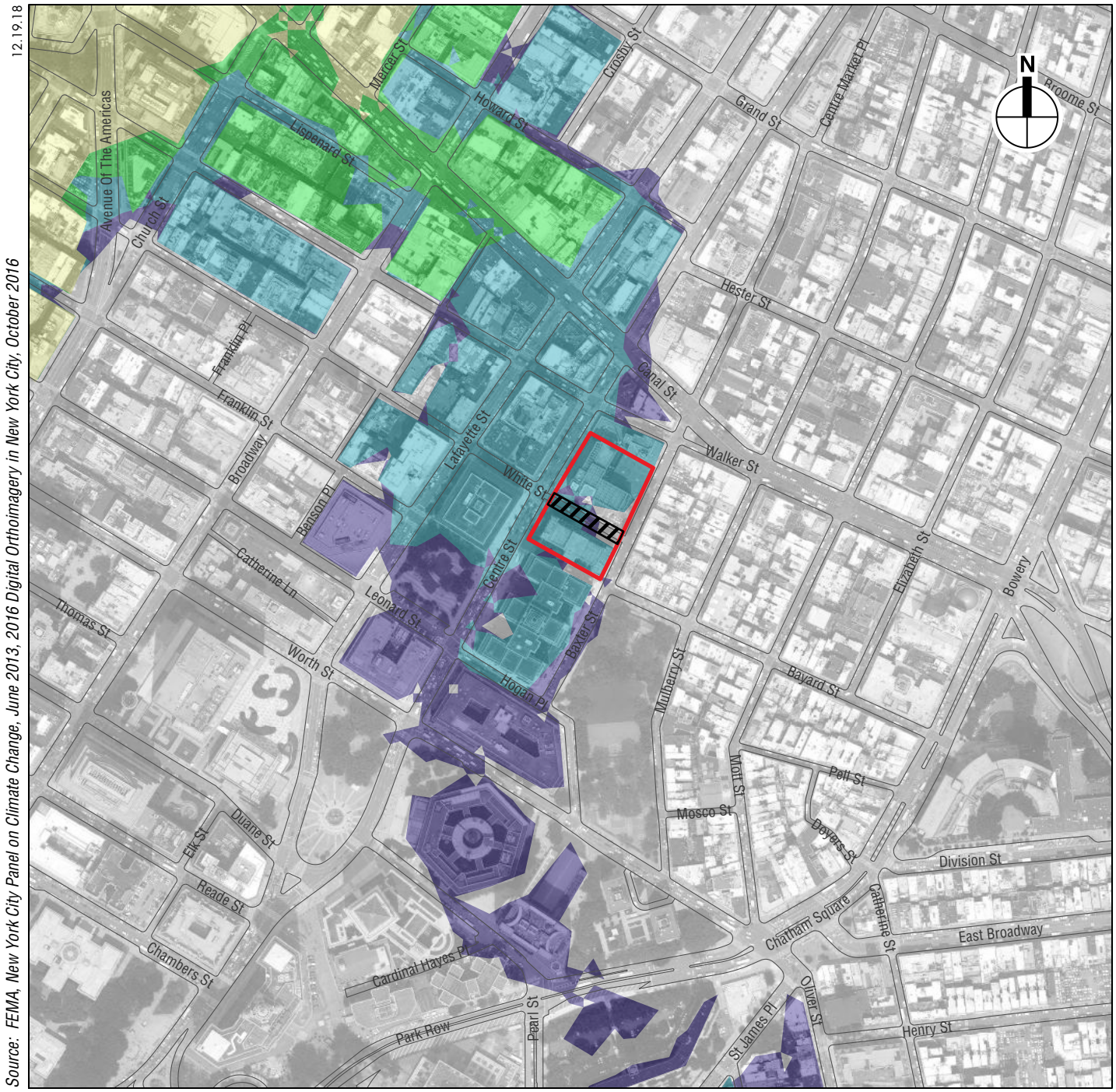
The current elevation of mean higher high water (MHHW) subject to daily tidal flooding is 2.28 feet NAVD88.[2]

Based on the "high" (90th percentile) NPCC sea level rise projections described above, the MHHW elevation could increase to 4.78 feet by the 2050s, 7.11 feet by the 2080s, and to 8.53 feet by 2100. These worst-case potential increases indicate that tidal inundation would not reach the project site, which has a surrounding ground elevation of approximately 14.0 to 16.0 feet.[3] The DCP Flood Hazard Mapper shows the closest region of MHHW under NPCC's "high" projection of sea level rise by 2100 to be approximately ½ mile southeast of the project site along the East River.

1(d). Describe how any additional coastal hazards are likely to affect the project, both currently and in the future, such as waves, high winds, or debris.

[2] NOAA Station 8518750, The Battery, NY.

[3] USGS 3DEP 1/3 arc-second, https://viewer.nationalmap.gov/advanced-viewer/.



Future 100-year Floodplains
Manhattan Site - 124/125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.1-5

Future High Tide
Manhattan Site - 124/125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.1-6

The project site is not located in a "V Zone" or "Coastal A Zone." These are areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves. Such areas are subject to more stringent building construction standards to prevent structural damage.

2. Identify adaptive strategies: Assess how the vulnerabilities and consequences identified in Step 1 are addressed through the project's design and planning.

2(a). For any features identified in Step 1(b) describe how any flood damage reduction elements incorporated into the project, or any natural elevation on the site, provide any additional protection. Describe how any planned adaptive measures would protect the feature in the future from flooding:

Current 1-percent-annual-chance flood:

The Manhattan Site is not within the current area subject to the 1-percent-annual-chance flood as shown on the Effective and Prelimary FIRM maps. As discussed below, the proposed building is expected to incorporate flood damage prevention measures during its initial construction in advance of the time when the 100-year flood is projected to reach the project site (the 2080s). Additional measures may be retrofitted to the building when the 100-year floodplain reaches the project site, if necessary.

Future 1-percent-annual-chance flood:

Based on conceptual plans, it is expected that the ground-floor elevation of the proposed project on the Manhattan Site would be approximately 18 feet NAVD88, which would be higher than NPCC's "high" future 2100 BFE of 16.25 feet. In addition, to the extent feasible, future design development for the building on the Manhattan Site would account for future flood levels and locate critical mechanical features such as heating, cooling, electrical, and telecommunication on building floors above NPCC's "high" future 2080s BFE of 14.8 feet or 2100 BFE of 16.25 feet. Those critical features that require an elevation below the BFE (such as water/sewer service and potentially other features conveyed below ground to a building's cellar level) could be dry-floodproofed either from the outset of the building's construction or at such time as the BFE reaches the proposed site, projected to be the 2080s or later. Similarly, vulnerable features (habitable space above the building's lowest floor, such as detention housing) would be located above the future BFEs by the 2080s or 2100. In addition, the proposed detention facilities would be equipped with emergency electrical generators and fuel storage to provide power for several days of power outages, as well as food supplies for seven days of operation. In the event of a power loss, the proposed facilities are intended to remain fully operational.

2(b). For any features identified in Step 1(c), describe how any flood damage reduction elements incorporated into the project, or any natural elevation on the site, provide any additional protection. Describe how any planned adaptive measures would protect the feature in the future from flooding:

As described above in 1(c), tidal inundation (MHHW) is not projected to reach the project site through the year 2100 under the NPCC's "high" (90th Percentile) sea

level rise projections. Therefore, adaptive measures to accommodate tidal inundation are not necessary.

2(c). Describe any additional measures being taken to protect the project from additional coastal hazards such as waves, high winds, or debris.

As described above in 1(d), the project site is not within, nor is it projected to be within, a "V Zone" or "Coastal A Zone". Therefore, the provisions of NYC Building Code Appendix G (G104.5.2 V-Zones and Coastal A-Zones) do not apply to the project site. These provisions require that building foundations be anchored to resist flotation, collapse and lateral movement due to the effects of wind, waves, and flood loads.

2(d). Describe how the project would affect the flood protection of adjacent sites, if relevant.

Because the coastal floodplain within New York City is controlled by astronomic tide and meteorological forces (e.g., nor'easters and hurricanes) and not by fluvial flooding,[4] the proposed project would not have the potential to adversely affect the floodplain or result in increased coastal flooding at adjacent sites.

3. Assess policy consistency: conclude whether the project is consistent with Policy 6.2 of the Waterfront Revitalization Program.

As described above, the project site is not within the current 100-year floodplain and is not projected to be within the 100-year floodplain until the 2080s under NPCC's "high" (90 Percentile) projection of sea level rise. Based on conceptual plans, it is expected that the ground-floor elevation of the proposed project on the Manhattan Site would be approximately 18 feet NAVD88, which would be higher than NPCC's "high" future 2100 BFE of 16.25 feet. In addition, to the extent feasible, future design development would account for future flood levels and locate critical features (heating/cooling/electrical/telecommunication) on building floors above NPCC's "high" future 2080s BFE of 14.8 feet or 2100 BFE of 16.25 feet. Those critical features that require an elevation below the BFE (such as water/sewer service and potentially other features conveyed below ground to a building's cellar level) could be dry-floodproofed either from the outset of the building's construction or at such time as the BFE reaches the project site, projected to be the 2080s or later. Similarly, vulnerable features (habitable space above the building's lowest floor) would be located above the future BFE's by the 2080s or by 2100.

Therefore, the proposed project would promote Policy 6.2.

Policy 7: Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.

[4] Federal Emergency Management Agency. 2013. Flood Insurance Study (FIS) City of New York, New York. FIS Number 360497V000B (Version Number 1.0.0.0) Preliminary. U.S. Department of Homeland Security. December 5, 2013.

Policy 7.1: Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution, and prevent degradation of coastal ecosystems.

Policy 7.2: Prevent and remediate discharge of petroleum products.

Policy 7.3: Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

Construction of the new facility would require extensive excavation of the Manhattan Site. Although this could increase pathways for human exposure, the potential for impacts would be avoided by incorporating the following into the project:

- Additional investigation of the Manhattan Site would be performed: a "Phase II Investigation", including collection of soil, groundwater and soil vapor samples for laboratory analysis. A Work Plan for the investigation, dated May 2018, not only tailored to the locations/depths where construction would occur, but also to the Recognized Environmental Conditions (RECs) identified in its Phase I Environmental Site Assessment, has been prepared and submitted to DEP for review and approval in advance of conducting the testing.
- Following implementation of the investigation, a report would be prepared for DEP and, based on its findings, a Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) would be prepared for implementation during the subsurface disturbance associated with construction. The RAP and CHASP would set out procedures to be followed to avoid the potential for adverse impacts related to hazardous materials identified by the investigation as well as other hazardous materials that could be (unexpectedly) encountered. The RAP would address requirements for items such as: field oversight of soil disturbance by an environmental professional, soil management (including stockpiling, handling, transportation and disposal), dust control and monitoring, and contingency measures should underground storage tanks (USTs) or soil contamination be encountered. The RAP also would include any necessary requirements for vapor controls to avoid the potential for soil vapor intrusion into new structures. The CHASP would set out the requirements for real-time air monitoring (for respirable dust and volatile organic compounds [VOCs]) during subsurface disturbance, to protect both the construction workers and the community. The RAP and CHASP would be subject to DEP for approval and, following construction, occupancy permits would only be issued once DEP received documentation that the RAP and CHASP are properly implemented.
- Removal of all known USTs, aboveground storage tanks (ASTs), and any unforeseen petroleum tanks would be performed in accordance with applicable regulatory requirements including New York State Department of Environmental Conservation requirements relating to spill reporting and tank registration.
- If dewatering were to be necessary for the proposed construction (groundwater was encountered at approximately 19 feet below grade during the geotechnical investigation of the White Street sites), water would be discharged to sewers in accordance with DEP requirements.

With the implementation of the regulatory requirements relating both to the demolition/renovation of the existing facilities and the measures required by the RAP/CHASP and other applicable regulatory requirements, the potential for significant adverse hazardous materials impacts from construction at the Manhattan Site would be avoided. Following construction, there would be no potential for significant adverse impacts relating to hazardous materials. ✷

Section 4.2: Socioeconomic Conditions-Manhattan

A. INTRODUCTION

This section describes the socioeconomic changes that could result from the proposed project on the Manhattan Site and assesses whether such changes could result in the potential for significant adverse environmental impacts. As described in the *2014 City Environmental Quality Review (CEQR) Technical Manual*, the socioeconomic character of an area includes its population, housing, and economic activity. Socioeconomic changes may occur when a project directly or indirectly changes any of these elements. The objective of the CEQR analysis is to disclose whether any of these changes would result in significant impacts when compared with what could happen in the future without the proposed project (the No Action condition).

In accordance with *CEQR Technical Manual* guidelines, this socioeconomic assessment considers five ways that a project could alter socioeconomic conditions: (1) direct residential displacement; (2) direct business displacement; (3) indirect residential displacement; (4) indirect business displacement; and (5) adverse effects on specific industries.

PRINCIPAL CONCLUSIONS

The following summarizes the analysis findings for each area of socioeconomic concern. As detailed below, the proposed project would not have the potential to result in significant adverse environmental impacts due to changes in socioeconomic conditions.

DIRECT RESIDENTIAL DISPLACEMENT

The Manhattan Site, located at 124 and 125 White Street (part of [p/o] Block 167 Lot 1 and Block 198, Lot 1, referred to herein as the "project site") does not contain any residential dwelling units (DUs). Therefore, the proposed project would not have the potential to result in any direct residential displacement.

DIRECT BUSINESS DISPLACEMENT

A screening assessment finds that the proposed project would not have the potential to result in significant adverse impacts due to direct business displacement. The project site currently houses the Manhattan Detention Complex (MDC), which consists of a North Tower (124 White Street) and South Tower (125 White Street), which function as one facility operated by the New York City Department of Correction (DOC). The proposed project would result in the demolition and redevelopment of the existing detention facility with a new modern detention facility. The five existing retail tenants located on the ground floor of MDC North would be displaced by construction of the new detention facility, but the City intends to work with affected businesses on future relocation plans. However, even if these businesses were permanently displaced from the Manhattan Site, their displacement would not constitute a significant adverse impact on the

socioeconomic character of the study area. The potential loss of employment (estimated to be 28 workers) is well below the 100-employee threshold for assessment, and the potential displacement would not have the potential to alter the socioeconomic condition of the neighborhood. Further, there are multiple similar businesses within close proximity to the project site.

INDIRECT RESIDENTIAL DISPLACEMENT

The concern with respect to indirect residential displacement is whether a proposed project or action could lead to increases in property values, and thus rents, making it difficult for some residents to afford their current residences. According to the *CEQR Technical Manual*, residential development of 200 units or less would typically not have the potential to result in significant socioeconomic impacts due to indirect residential displacement. As the proposed project would not introduce any residential DUs on the project site, it is not anticipated to have the potential to result in indirect residential displacement.

INDIRECT BUSINESS DISPLACEMENT

A preliminary assessment of indirect business displacement concludes that the proposed project would neither have the potential to result in indirect business displacement due to increased property values or rents nor introduce a concentration of uses that would offset positive trends within the study area. The proposed project would replace an existing detention facility (a use that has been located at that site since 1838) with a new modern detention facility and would therefore not introduce a new economic activity or substantially change business conditions within the socioeconomic study area.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

As the potential for any direct and indirect business displacement would be limited and not specific to any industry, an assessment of adverse effects on specific industries is not warranted.

B. METHODOLOGY

ANALYSIS FORMAT

Following *CEQR Technical Manual* guidelines, the socioeconomic analysis begins with a screening-level assessment that determines the need for a preliminary assessment. As detailed below in Section C, "Screening Assessment," the proposed project exceeds thresholds warranting preliminary assessment of one of the five socioeconomic areas of concern: indirect business displacement.

When warranted, a preliminary assessment is conducted to learn enough about the potential effects of a project to either rule out the possibility of significant adverse impacts or determine that a more detailed analysis is required to fully determine the extent of the impacts. A preliminary assessment responds to questions based on guidance from the *CEQR Technical Manual*. If the responses to questions indicate there is no potential for significant adverse impacts, further analysis is not warranted. A detailed analysis, when warranted, addresses the same issues of concern but frames the assessment to more particularly examine the changes to socioeconomic conditions in the future with the proposed project (the With Action condition) as compared with the changes that would be expected in the No Action condition. With respect to the proposed project, a preliminary assessment (presented below in Section D, "Preliminary Assessment") was sufficient to conclude

that the proposed would not result in the potential for significant adverse socioeconomic impacts, and no further analysis was warranted.

PROJECT SITE

The Manhattan Site is located at 124/125 White Street (p/o Block 167 Lot 1 and Block 198, Lot 1) at the border of the Civic Center and Chinatown neighborhoods of Manhattan Community District (CD) 1. The site is located on two city blocks bounded by Centre Street, Hogan Place (an extension of Leonard Street) Walker Street, and Baxter Street and bisected by White Street. The project site is the current location of MDC, an existing detention facility. Adjacent to the MDC South Tower on the same block is the Manhattan Criminal Court building at 100 Centre Street.

STUDY AREA DEFINITION

A socioeconomic study area is an area within which the proposed project could directly or indirectly affect the population, housing, and economic activities. A study area encompasses a project area and adjacent areas within approximately 400 feet, ¼-mile, or ½-mile radius, depending upon the project size and area characteristics. According to the *CEQR Technical Manual*, the socioeconomic study area boundaries typically are similar to those of the land use study area, which for the proposed project is a ¼-mile radius around the project site. Because socioeconomic analyses depend on demographic data, the *CEQR Technical Manual* states that it is appropriate to adjust the study area boundary to conform to the census tract delineation that most closely approximates the desired radius (in this case, a ¼-mile radius surrounding the project site). The census tracts that constitute the "socioeconomic study area," or "study area," are shown in **Figure 4.2-1** and include census tracts 29, 31, 41, and 45 in Manhattan CDs 1, 2, and 3.

DATA SOURCES

To perform the indirect business displacement assessment, census tract-level New York State Department of Labor Quarterly Census of Employment and Wages (QCEW) business and employment data for the third quarter of 2016 were obtained from the New York City Department of City Planning (DCP) Housing, Economics, and Infrastructure Planning (HEIP) Division. QCEW data on Manhattan and New York City were collected by AKRF, Inc. for the third quarter of 2016. Additional primary data related to land use and economic activity was collected during field surveys of the study area conducted by AKRF in August of 2018.

C. SCREENING ASSESSMENT

According to the *CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes in the area affected by the project that would not be expected to occur in the absence of the project. This screening assessment presents the *CEQR Technical Manual* threshold circumstances (numbered in bold italics) that can lead to socioeconomic changes warranting further analysis and compares those thresholds with the proposed project's Reasonable Worst Case Development Scenario (RWCDS).

1. DIRECT RESIDENTIAL DISPLACEMENT

Would the proposed project directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered? Displacement of

Socioeconomic Study Area
Manhattan Site - 124-125 White Street
Figure 4.2-1

fewer than 500 residents would not typically be expected to alter the socioeconomic character of a neighborhood.

The project site does not contain any residential DUs. Therefore, the proposed project would not directly displace a residential population, and no further assessment of this concern is warranted.

2. DIRECT BUSINESS DISPLACEMENT

Would the proposed project directly displace more than 100 employees, or would it displace any business that is unusually important because its products or services are uniquely dependent on its location, are subject to policies or plans aimed at its preservation, or that serves a population uniquely dependent on its services in its present location?

The project site currently houses MDC, which consists of a North Tower (124 White Street) and South Tower (125 White Street), which function as one facility operated by DOC. In addition to the existing detention facility, the ground floor of MDC North includes five commercial retail storefronts occupied by three restaurants, one deli, and one pharmacy. These five businesses would be displaced by construction of the proposed project on the Manhattan Site. The City intends to work with affected businesses on future relocation plans However, for the purposes of a conservative analysis, the screening assessment assumes that the five businesses would be permanently displaced from the project site.

According to the CEQR *Technical Manual*, projects that displace more than 100 employees warrant further assessment because such displacement could alter the socioeconomic character of the neighborhood. As shown in **Table 4.2-1** the businesses currently located on the project site employ an estimated 28 employees, well below the 100-employee analysis threshold.

Another CEQR criterion for direct business displacement is whether a project would directly displace a business that is "unusually important" because its products or services are uniquely dependent on its location; that, based on its type or location, is the subject of other regulations or public adopted plans aimed at its preservation; or that serves a population uniquely dependent on its services in its present location. While these five businesses are amenities to the community these are not uniquely important to the socioeconomic study area, and there are multiple substitutes for the goods and services provided by these businesses in proximity to the project site. There would be no unavailability of the services these businesses provide in the adjacent neighborhood.

Based on the above screening-level assessment, the proposed project would not have the potential to result in significant adverse impacts to the socioeconomic study area as a result of direct business displacement.

Table 4.2-1
Private Employment Located on the Proposed Alternative Site

Business Name	Business Type	Employment Multiplier [1] (square feet per employee)	Estimated Size (square feet)[2]	Total Employment
Jaya Malaysian-Thai-Chinese Cuisine	Restaurant	200	1,575	8
China Village Restaurant	Restaurant	200	1,260	6
Nha Trang Centre	Restaurant	200	1,575	8
Metropharm	Retail (Pharmacy)	333	1,260	4
Centre Finest Deli	Retail (Deli)	333	630	2
Total			**6,300**	**28**

Notes:
1. Estimates of potentially displaced employment are based on field visits conducted by AKRF and the following industry employment density ratios commonly used for CEQR analyses (including for the *East Harlem Rezoning Final EIS*): 1 employee per 100 square feet (sf) of fast food service; 1 employee per 200 sf of sit down food service; 1 employee per 333 sf of retail and other services; and 1 employee per 1,000 sf of discount retail.
2. Total size of businesses is estimated based on DCAS information, existing floor plans for MDC North and field visits conducted by AKRF in the fall of 2018.

Sources: AKRF, Inc. Department of Citywide Administrative Services (DCAS)

3. INDIRECT RESIDENTIAL AND BUSINESS DISPLACEMENT

Would the proposed project result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood? Residential development of 200 units or less or commercial development of 200,000 square feet or less would typically not result in significant socioeconomic impacts.

The proposed project would not introduce additional DUs in the study area; therefore, an analysis of indirect residential displacement is not warranted. While the proposed project would not introduce substantial new commercial development, it would replace the existing detention facility on the project site with a new, approximately 1,270,000-gross-square-foot (gsf) public detention facility. The size and scale of the new use warrant a preliminary assessment of indirect business displacement.

4. ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

Is the proposed project expected to affect conditions within a specific industry? This could affect socioeconomic conditions if a substantial number of workers or residents depend on the goods or services provided by the affected businesses, or if the project would result in the loss or substantial diminishment of a particularly important product or service within the city.

As discussed in C., Screening Assessment, the potential for any direct business displacement would be limited. As discussed in Section D., Preliminary Assessment, the potential for any indirect business displacement would be limited and not specific to any industry. Therefore, an assessment of adverse effects on specific industries is not warranted.

Based on the screening assessment presented above, the proposed project warrants preliminary assessments of indirect business displacement.

D. PRELIMINARY ASSESSMENT

INDIRECT BUSINESS DISPLACEMENT

As described in the *CEQR Technical Manual*, indirect business displacement focuses on whether the proposed project would have the potential to result in a change in socioeconomic conditions that would lead to the involuntary displacement of business or employees. Changes in socioeconomic conditions include a change in property values and rents within the study area. The preliminary analysis first presents existing business conditions and trends within the study area and then analyzes the potential for the proposed project to influence these trends.

EXISTING CONDITIONS

The study area is situated in Lower Manhattan at the intersection of the neighborhoods of Chinatown, Little Italy, SoHo, Tribeca, and Civic Center. Much of the northern and eastern portions of the socioeconomic study area are located within Chinatown and Little Italy, neighborhoods that are primarily composed of small retail businesses serving the local community, area workers, and tourists. These businesses include restaurants, grocery stores, bakeries, and specialty stores such as souvenir shops.

SoHo and Tribeca are broadly similar in character to Little Italy and Chinatown but include higher-end retail stores and some commercial office buildings. Civic Center's socioeconomic character is markedly different, and includes large office buildings and government buildings. Much of the commercial activity takes place in the area immediately surrounding City Hall and serving area workers and municipal offices.

The project site is occupied by MDC, an existing detention facility, and is located near the Federal Metropolitan Correction Center (MCC), which is south of the project site on Park Row. These two facilities contribute to the socioeconomic character of the study area and employ hundreds of workers, who support existing businesses within the study area. Directly around the MDC, there are multiple bail-bond agents and other legal support businesses that have collocated in proximity to the area's court and detention facilities. Overall, the study area's business activities primarily serve the local residential community, tourists, and area office workers, including civil servants.

Profile of Private Employment in the Socioeconomic Study Area

As shown in **Table 4.2-2**, within the socioeconomic study area an estimated 26,507 workers are employed by private sector firms. The sector with the greatest number of study area workers is the Accommodation and Food Services sector, which employs an estimated 4,788 employees (18.1 percent of total private sector employment). Proportionally, this is greater than this sector's overall representation within Manhattan (10.7 percent), and within New York City overall (9.8 percent). Other large private employment sectors within the study area include Health Care and Social Assistance sector which comprise 17.7 percent of total study area private sector employment (4,693 workers), and the Retail Trade sector, which employs an estimated 4,556 workers and represents approximately 17.2 percent of the study area's private sector employment.

Table 4.2-2
2016 Private Employment in Socioeconomic Study Area, Manhattan, and New York City

	Socioeconomic Study Area		Manhattan		New York City	
	Employees	**%**	**Employees**	**%**	**Employees**	**%**
Agriculture, Forestry, Fishing, and Hunting	X	N/A	147	0.0	298	0.0
Mining, Quarrying, and Oil and Gas Extraction	X	N/A	17	0.0	17	0.0
Utilities	X	N/A	X	N/A	5,193	0.1
Construction	677	2.6%	41,913	2.0	146,050	4.0
Manufacturing	736	2.8%	26,600	1.2	75,051	2.1
Wholesale Trade	661	2.5%	74,884	3.5	134,907	3.7
Retail Trade	4,556	17.2%	156,237	7.3	341,870	9.5
Transportation and Warehousing	X	N/A	16,805	0.8	111,939	3.1
Information	1,130	4.3%	157,472	7.3	179,157	5.0
Finance and Insurance	1,132	4.3%	291,999	13.6	330,820	9.2
Real Estate, Rental, and Leasing	734	2.8%	83,628	3.9	127,935	3.5
Professional, Scientific, and Tech Services	3,259	12.3%	352,435	16.4	396,917	11.0
Management of Companies and Enterprises	570	2.2%	59,849	2.8	66,920	1.9
Administrative and Support and Waste Management and Remediation	1,030	3.9%	147,960	6.9	225,114	6.2
Educational Services	689	2.6%	106,920	5.0	166,750	4.6
Health Care and Social Assistance	4,693	17.7%	226,376	10.5	669,489	18.5
Arts, Entertainment, and Recreation	441	1.7%	62,163	2.9	85,035	2.4
Accommodation and Food Services	4,788	18.1%	230,508	10.7	353,384	9.8
Other Services (except Public Administration)	1,042	3.9%	101,725	4.7	172,360	4.8
Unclassified	X	N/A	8,974	0.4	24,105	0.7
Total	26,507	100%	**2,146,612**	**100**	**3,613,311**	**100**

Notes: "X" indicates that the data cannot be disclosed or the sector does not exist in the geographic area.

Sources: NYS Department of Labor. Quarterly Census of Employment and Wages (QCEW), 2008 and 2016 (3Q). NYC DCP HEIP Division (January 2019).

Profile of Private Businesses in the Socioeconomic Study Area

As shown in **Table 4.2-3**, there are an estimated 3,097 private sector firms located within the socioeconomic study area. In addition to these, the study area includes a large number of government agencies including city, state, and federal law enforcement and courts of law. The largest concentration of private firms within the study area, an estimated 18 percent (558 firms) are found in the Retail Trade sector. This is proportionally higher than the sector within Manhattan where an estimated 8.7 percent of private firms are in this sector, and within New York City as a whole, where 12.6 percent of private firms are within this sector.

Table 4.2-3
2016 Private Businesses in Socioeconomic Study Area, Manhattan, and New York City

	Socioeconomic Study Area		Manhattan		New York City	
	Firms	**%**	**Firms**	**%**	**Firms**	**%**
Agriculture, Forestry, Fishing, and Hunting	X	N/A	21	0.0	48	0.0
Mining, Quarrying, and Oil and Gas Extraction	X	N/A	8	0.0	8	0.0
Utilities	X	N/A	X	N/A	31	0.0
Construction	48	1.5%	2,242	1.8	13,860	5.2
Manufacturing	75	2.4%	2,123	1.7	5,693	2.2
Wholesale Trade	154	5.0%	8,006	6.3	14,858	5.6
Retail Trade	558	18.0%	11,049	8.7	33,246	12.6
Transportation and Warehousing	X	N/A	809	0.6	5,027	1.9
Information	96	3.1%	4,944	3.9	6,590	2.5
Finance and Insurance	108	3.5%	8,356	6.6	12,158	4.6
Real Estate, Rental, and Leasing	242	7.8%	11,065	8.8	21,412	8.1
Professional, Scientific, and Tech Services	456	14.7%	20,142	15.9	30,138	11.4
Management of Companies and Enterprises	10	0.3%	1,129	0.9	1,439	0.5
Administrative and Support and Waste Management and Remediation	134	4.3%	6,361	5.0	11,655	4.4
Educational Services	35	1.1%	1,923	1.5	4,149	1.6
Health Care and Social Assistance	304	9.8%	8,026	6.4	23,299	8.8
Arts, Entertainment, and Recreation	68	2.2%	4,165	3.3	5,793	2.2
Accommodation and Food Services	309	10.0%	9,899	7.8	22,356	8.5
Other Services (except Public Administration)	287	9.3%	20,348	16.1	36,444	13.8
Unclassified	X	N/A	5,735	4.5	15,921	6.0
Total	3,097	100.0%	**126,351**	**100**	**264,125**	**100**

Notes: "X" indicates that the data cannot be disclosed or the sector does not exist in the geographic area.

Sources: NYS Department of Labor. Quarterly Census of Employment and Wages (QCEW), 2008 and 2016 (3Q). NYC DCP HEIP Division (January 2019)

The second largest sector of private employment within the study area is Professional, Scientific, and Technical Services. Within the study area, there are an estimated 456 firms within this sector, comprising an estimated 14.7 percent of total study area private sector firms. This concentration of firms is roughly proportional to the percentage of private firms within this sector within Manhattan (15.9 percent) and slightly higher than the percentage of this sector across New York City overall (11.4 percent).

Within the study area, there are an estimated 309 Accommodation and Food Services firms (10 percent of private sector firms). This is a larger percentage of private firms in this sector within the study area as compared with both Manhattan and New York City overall, where only an estimated 7.8 percent and 8.5 percent of private firms are within that sector, respectively.

THE FUTURE WITHOUT THE PROPOSED PROJECT

Project Site

In the No Action condition, the project site will remain as described in "Existing Conditions." The existing 9- and 13-story detention facilities would remain in operation. The ground-floor retail would remain and the existing businesses would continue to operate through their existing leases.

Study Area

Based on information provided by the New York City Department of Buildings and fieldwork conducted by AKRF in August 2018, in the No Action condition, approximately seven developments are anticipated to be constructed within the study area. In total, approximately 58 dwelling units, 61 hotel rooms and 54,765 square feet of commercial space (retail and office space) are anticipated to be constructed within the socioeconomic study area in the No Action condition. In addition, approximately 6,600 square feet of community facility space will be developed in the No Action condition.

THE FUTURE WITH THE PROPOSED PROJECT

In the future with the proposed project, a 1,270,000-gsf building would be constructed containing a 1,437-bed detention facility, support services (including public lobby, visitation and educational space), and approximately 20,000 gsf of community facility or retail space on the ground floor. The following assessment considers whether this development, including the proposed community facility and retail space, could create conditions that change commercial property values, affect customer bases for existing businesses, and alter land use patterns, which could in turn contribute to indirect business displacement.

1. ***Would the proposed project introduce a trend that increases commercial property values, making it difficult for businesses essential to the local economy—or a business that is the subject of regulations or publicly adopted plans to preserve, enhance, or otherwise protect it—to remain in the study area?***

The proposed project is not anticipated to introduce a trend that increases commercial property values within the socioeconomic study area. The study area already includes a number of public facilities including existing detention facilities, such that the proposed project would not include any economic activity not already present within the study area.

2. ***Would the proposed project directly displace uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses?***

The proposed project would displace five businesses within the socioeconomic study area during the construction of the proposed project. The City intends to work with affected businesses on future relocation plans. However even if these businesses were to be permanently displaced, their displacement would not have the potential to result in significant adverse effects on the socioeconomic conditions within the study area as these businesses are not uniquely important to the study area, and all have multiple substitute or similar businesses within the socioeconomic study area which customers could alternatively frequent. The proposed project would also include new retail space to be tenanted by the existing businesses and/or by new businesses. Furthermore, the proposed project is projected to introduce approximately 1,400 daily workers and visitors to the study area, an incremental increase of approximately 680 workers and visitors over the existing

and No Action conditions. These visitors would be expected to patronize study area businesses, adding to the potential customer base for these businesses.

3. Would the proposed project directly or indirectly displace residents, workers, or visitors who form the customer base of existing businesses in the Study Area?

The proposed project would support the existing businesses within the study area by increasing their potential customer base by attracting visitors and employees to the area. This would primarily benefit the general retail, personal services, and food service sectors as activities associated with the proposed project that draw workers to the area. Further, the proposed project would support the existing legal services business located within the study area.

4. Would the proposed project alter land use patterns such that it offsets positive trends in the area, impedes efforts to attract investment to the area, or creates a climate for disinvestment?

The proposed project would not offset positive trends within the study area. The project site is currently a detention center within the larger Civic Center of Manhattan, an area with a high concentration of government offices. The proposed project would invest in a new detention facility that is better integrated into the community; specifically, the proposed project would incorporate active ground-floor uses, interior waiting areas for visitors, and streetscape improvements including new landscaping and lighting. The addition of new employees and visitors would expand the customer base of existing businesses within the study area. Further, the proposed project would not disrupt economic trends or alter land use patterns within the study area as the study area already includes multiple detention facilities, a use which has been located in this area since the 1830s. The existing jail facility faces a thriving retail corridor, and there are residential and commercial office buildings that do not appear to be adversely affected by the existing operating jail.

CONCLUSION

This preliminary assessment finds that the proposed project would not have the potential to result in indirect business displacement. The proposed project would introduce an economic activity already found within the study area. It would not directly or indirectly displace uses that provide critical support to businesses in the study area, or businesses that generate a substantial portion of the customer base for local businesses. To the contrary, the proposed project would invest in the study area by introducing new community facility space, as well as introduce additional workers and visitors to the study area, who are potential customers for existing businesses. As such, the proposed project would not have the potential to result in significant adverse socioeconomic impacts due to indirect business displacement, and no further assessment is warranted. ✷

A. INTRODUCTION

This section assesses the potential impact of the proposed project on open space resources surrounding the Manhattan Site. Open space is defined by the 2014 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately owned land that is available for leisure, play, sport, or serves to protect and enhance the natural environment. *CEQR Technical Manual* guidelines indicate that an open space analysis should be conducted if an action would result in a direct effect, such as the physical loss or alteration of public open space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces.

The proposed project would result in the development of a new detention facility on the Manhattan Site, as discussed in Chapter 1, "Project Description." The proposed project's estimated incremental worker and visitor population at the Manhattan Site would exceed the CEQR threshold of 500 workers requiring an open space analysis of non-residential populations. Therefore, in accordance with *CEQR Technical Manual* guidelines, an open space assessment was conducted to determine whether the proposed project would result in any potential for significant adverse indirect open space impacts.

PRINCIPAL CONCLUSIONS

The proposed project would not alter or eliminate any public open space resources on the project site. Based on the analyses provided in Manhattan Site Sections 4.4, "Shadows," 4.10, "Air Quality," 4.11, "Noise," and 4.14, "Construction," study area open spaces would not experience project-related significant adverse shadows, air quality, or noise impacts. Therefore, the proposed project would not result in the potential for significant adverse impacts related to direct effects on open space.

The proposed project would introduce new non-residents (i.e., workers and visitors) to the project site, and therefore increase demand on public open space resources within the study area. However, this increased demand as compared with the future without the proposed project would not result in the potential for an indirect significant adverse impact, and a sufficient amount of open space would remain within the study area.

B. METHODOLOGY

DIRECT EFFECTS ANALYSIS

According to the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently

affect the usefulness of a public open space. This section uses information from Manhattan Site Sections 4.4, "Shadows," 4.10, "Air Quality," 4.11, "Noise," and 4.14, "Construction," to determine whether the proposed project would have the potential to directly affect any open spaces near the project site. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public. The direct effects analysis is included below in "The Future With the Proposed Project."

INDIRECT EFFECTS ANALYSIS

The *CEQR Technical Manual* suggests that a detailed indirect effects analysis is necessary when a project would introduce 200 or more residents or 500 or more workers to an area; however, the thresholds for assessment are slightly different for areas of the City that have been identified as either underserved or well served by open space. The proposed project's Manhattan Site is not located within an area that has been identified as either underserved or well served; therefore, the 200 resident and 500 worker thresholds were applied in this analysis. The proposed project would not introduce a new residential population above the 200-resident threshold but would introduce a new worker and visitor population above the 500-worker threshold; therefore, following *CEQR Technical Manual* guidance, a detailed non-residential indirect effects open space analysis was conducted, as described below.

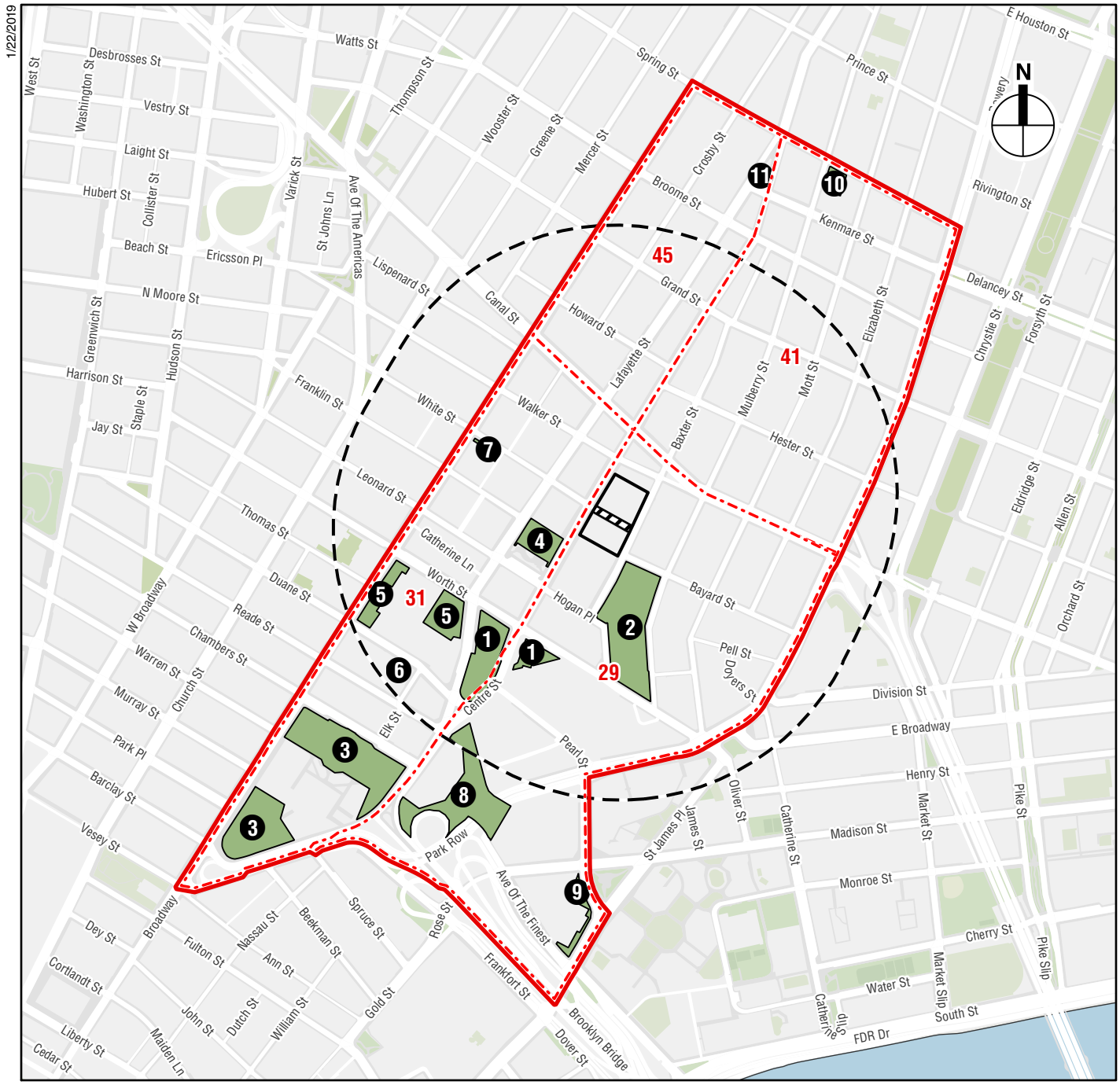
STUDY AREA

The *CEQR Technical Manual* recommends establishing a study area or areas as the first step in an open space assessment. The study areas are based on the distances that the respective users—workers (or non-residents) and residents—are likely to walk to an open space. According to the *CEQR Technical Manual*, workers typically use passive open spaces and are assumed to walk approximately 10 minutes, or ¼ mile from their place of work to an open space. Residents are assumed to walk approximately 20 minutes, or ½ mile to an open space, to reach both passive and active open spaces.

The proposed project would not include any new residential units; therefore, a residential open space assessment was not warranted. However, the proposed project is expected to result in new institutional use that would introduce a new non-residential population to the area. Existing workers on the site are conservatively assumed to be relocated nearby and therefore the worker and visitor population of the proposed project would represent the increment for analysis. The proposed project would introduce new non-residential population above the 500-worker threshold described in the *CEQR Technical Manual*. Therefore, the effect on the proposed project on open spaces was analyzed following *CEQR Technical Manual* guidelines.

The non-residential open space study area comprises all census tracts with at least 50 percent of their area within a ¼ mile of the Manhattan Site. As shown in **Figure 4.3-1**, the ¼-mile study area includes the area within Census Tracts 29, 31, 41, and 45.[1] These four census tracts cover an area bounded approximately by Spring Street to the north, the Bowery and St. James Place to the east, the Brooklyn Bridge and Park Row to the south, and Broadway to the west (see **Figure 4.3-1**). These census tracts are mapped within Manhattan Community Districts 1, 2, and 3.

[1] 2010 U.S. Census.



Open Space Study Area
Manhattan Site - 124-125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.3-1

STUDY AREA POPULATION

EXISTING CONDITIONS

Information regarding the existing worker population within the non-residential study area was compiled based on data from ESRI Business Analyst, a national provider of geographic planning data.

NO ACTION CONDITION

The non-residential population in the study area in the future without the proposed project (the No Action Condition) was determined by adding the number of non-residents anticipated to result from developments that are expected to be completed in the study area by 2027 to the existing non-residential population.

WITH ACTION CONDITION

The non-residential population in the study area in the future with the proposed project (the With Action Condition) was determined by adding the number of non-residents anticipated from the proposed project to the non-residential populations in the future without the proposed project. It is anticipated that the proposed project would introduce approximately 584 daily workers and 854 daily visitors to the project site. Compared with the No Action Condition, this would represent an incremental increase of 676 additional non-residents to the study area.

INVENTORY OF OPEN SPACE RESOURCES

Publicly accessible open spaces and recreational facilities within the study area were inventoried to determine their size, character, utilization, and condition. In accordance with the *CEQR Technical Manual*, publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and a qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. Open spaces that are not accessible to the general public or that do not offer usable recreational areas were excluded from the survey. Information on the size of the open spaces was obtained from the New York City Department of Parks and Recreation (NYC Parks) and using Geographic Information System (GIS) measurements. The amenities, condition, and utilization of the resources was determined through field surveys conducted during working hours in July and October 2018.

At each open space, active and passive recreational spaces were noted. Active open space acreage is used for activities such as jogging, field sports, and children's active play. Passive open space usage includes activities such as strolling, reading, lounging, and people watching. Some spaces, such as lawns and public esplanades, can be considered both active and passive recreation areas since they can be used for passive uses such as sitting or strolling, as well as active uses, such as jogging. For the purpose of this analysis, special attention was paid to the passive open space resources in the study area, as non-residential users are unlikely to participate in activities that require active space during the day. Based on the methodology in the *CEQR Technical Manual*, the utilization level at each facility was determined based on observations of the amount of open space or equipment seen to be in use. Open spaces with less than 25 percent of space or equipment in use were categorized as low usage; those with 25 to 75 percent utilization were classified as moderate usage; and those with over 75 percent utilization were considered to have heavy usage.

ADEQUACY OF OPEN SPACE RESOURCES

COMPARISON TO GUIDELINES

The adequacy of open space in the study are quantitatively assessed using a ratio of usable open space acreage to the study area population; this is referred to as the open space ratio. To assess the adequacy of open space resources, open space ratios are compared with planning goals set by the City as described in the *CEQR Technical Manual*. Although these open space ratios are not meant to determine whether a proposed project might have a significant adverse impact on open space resources, they are helpful guidelines in understanding the extent to which user populations are served by open space resources. For non-residential populations, 0.15 acres of passive open space per 1,000 non-residents is typically considered adequate.

C. EXISTING CONDITIONS

STUDY AREA NON-RESIDENTIAL POPULATION

Based on the data compiled from ESRI Business Analyst, the four Census Tracts in the open space study area (tracts 29, 31, 41, and 45) contain 3,034 businesses employing 36,876 people (see **Table 4.3-1**).

Table 4.3-1
Existing Non-Residential Population within the Study Area

Census Tract	Non-Residential Population
29	12,974
31	11,807
41	6,605
45	5,490
Total	**36,876**

Source: *ESRI Business Analyst; 2018 Infogroup, Inc.*

STUDY AREA OPEN SPACE RESOURCES

As shown in **Table 4.3-2** and **Figure 4.3-1**, there are 11 open space resources located within the non-residential study area. These open space resources are varied in nature, including large parks, small plazas, and a National Monument.

Thomas Paine Park, also known as Foley Square, is a large park with a plaza occupying its southern portion. It is surrounded by Lafayette, Centre, and Worth Streets, to the southwest of the project site, and contains 1.88 acres of open space, all of which is passive in nature. Features include benches, lawn areas, a plaza area, a sundial, a large fountain, statues, a garden, tree coverage, and Wi-Fi hotspots. Well suited for passive recreational usage, the park is currently in good condition and has medium utilization.

Table 4.3-2
Inventory of Publicly Accessible Open Space in the Non-Residential Study Area

Map No.	Name	Location	Owner/ Agency	Amenities	Total Acres	Active Acres	Passive Acres	Condition	Utilization
1	Thomas Paine Park (Foley Square)	Lafayette Street, Centre Street, and Worth Street	NYC Parks	Benches, lawn areas, a plaza area, a large fountain, statues, a garden, tree coverage, Wi-Fi hotspots	1.88	0	1.88	Good	Medium
2	Columbus Park	Baxter Street, Mulberry Street, Bayard Street, and Worth Street	NYC Parks	Benches, bathrooms, a pavilion, chess tables, a statue, a soccer field, a volleyball field, tree coverage, water fountains, playground equipment, swings, basketball courts, ping-pong	3.23	1.94	1.29	Adequate	Heavy
3	City Hall Park	Broadway, Park Row, and Chambers Street	NYC Parks	A large fountain, a plaza area, art installations, landscaped areas, tree coverage, statues, chess tables, Wi-Fi hotspots, eateries, benches	5.08	0	5.08	Adequate	Heavy
4	Collect Pond Park	Leonard Street, Centre Street, and Lafayette Street	NYC Parks	A pond, a plaza area, planters, water fountains, tree coverage, tables, benches	0.99	0	0.99	Good	Medium
5	Jacob K. Javits Federal Building Plazas	Lafayette Street, Duane Street, Broadway, and Worth Street	United States General Services Administration	Plaza areas, benches, landscaped areas, planters, a fountain, sculptures	1.39	0	1.39	Good	Medium

Table 4.3-2
Inventory of Publicly Accessible Open Space in the Non-Residential Study Area

Map No.	Name	Location	Owner/ Agency	Amenities	Total Acres	Active Acres	Passive Acres	Condition	Utilization
6	African American Burial Ground National Monument	Duane Street between Elk Street and Broadway	National Park Service	A monument, landscaped areas, a plaza area, benches	0.11	0	0.11	Good	Medium
7	Mandarin Plaza POPS	Broadway and White Street	Mandarin Plaza	Large planters, water fountain, pergola, seating area with benches, bike racks	0.08	0	0.08	Under Renovation	Low
8	David M. Dinkins Municipal Building Plaza	Centre Street, Park Row, and Foley Square	DCAS	Food and beverage huts, moveable tables and chairs, a seating area with benches, large planters, benches, a large art sculpture, grassy areas, tree coverage, chess tables	2.52	0	2.52	Adequate	Medium
9	375 Pearl Street POPS	Pearl Street and Avenue of the Finest	375 Pearl Street	N/A	0.34[1]	0[1]	0.34[1]	N/A	N/A
10	Desalvio Playground *(Future Conditions Only)*	Spring Street and Mulberry Street	NYC Parks	Basketball court, horizontal climbing wall, playground equipment, spray showers, seating areas, gaming tables	0.27[2]	0.20[2]	0.07[2]	N/A	N/A
11	Lt. Petrosino Square	Cleveland Place, Kenmare Street, and Lafayette Street	NYC Parks	Seating areas with benches, water fountains, landscaped areas	0.05	0	0.04	Good	Heavy
Totals					**15.32**	**1.94**	**13.39**		

Notes:
DCAS=New York City Department of Citywide Administrative Services
[1] 375 Pearl Street POPS's acreage was not included in the existing condition's total, active, and passive open space acreages as this resource is currently being reconstructed and is not accessible by the public for use.
[2] Desalvio Playground's acreage was not included in the existing condition's total, active, and passive open space acreages as this resource is currently being reconstructed and is not accessible by the public for use. This open space acreage is accounted for in the No Action and With Action Condition analyses.
[3] Totals may not add up due to rounding. See **Figure 4.3-1** for a map of open space resources.
Sources:
NYC Parks; National Park Service; Field Surveys, July & October 2018; MapPLUTO.

Columbus Park is another large park located east-adjacent to the project site, between Baxter, Mulberry, and Worth Streets. The park contains 3.23 acres of open space, split approximately 60/40 between active and passive spaces. Features include benches, bathrooms, a pavilion, chess tables, a statue, a soccer field, a volleyball field, tree coverage, water fountains, playground equipment, swings, basketball courts, and ping-pong. The park is currently in adequate condition and experiences heavy usage.

City Hall Park is the largest open space resource within the study area, and is located southwest of the project site between Chambers Street, Park Row, and Broadway. The park totals 8.8 acres, although much of this space is not publicly accessible. For analysis purposes, it was determined that approximately 5.0 acres of City Hall Park is publicly accessible, the entirety of which is passive. Features include a large fountain, a plaza area, art installations, landscaped areas, tree coverage, statues, chess tables, Wi-Fi hotspots, eateries, and benches. The park is currently in adequate condition and experiences heavy utilization. A portion of this resource surrounding City Hall is fenced off by the NYPD, and thus the acreage of this area has not been included in the open space inventory.

Collect Pond Park is a park located to the northwest of the project site between White, Centre, Leonard, and Lafayette Streets. The park contains 0.99 acres of open space, the entirety of which is passive. Features include a pond, a plaza area, planters, water fountains, tree coverage, tables, and benches. The park is currently in good condition and experiences medium utilization.

The Jacob J. Javits Federal Building, which is located southwest of the project site between Worth, Lafayette, and Duane Streets and Broadway, contains two publicly accessible open space areas on its grounds. One of these spaces is located at the front of the building fronting Lafayette Street and the other is located at the back of the building fronting Broadway. Both areas are plazas with landscaping, and total 1.386 acres, all passive in nature. Features include plaza areas, benches, landscaped areas, planters, a fountain, and sculptures. These spaces are currently in good condition and experience medium utilization. A small portion of this open space is currently fenced off with temporary security barriers.

The African American Burial Ground National Monument is a National Monument located southwest of the project site on the southwest corner of Duane and Elk Streets. A monument erected on the discovered location of a colonial-era burial ground for African Americans, the resource is entirely passive, totaling 0.112 acres. Features include a monument to those interred at the site and African American contributions to early American history, landscaped areas, a plaza area, and benches. The monument is currently in good condition and experiences medium utilization.

The Mandarin Plaza privately owned public space (POPS) is located northwest of the project site on the southeast corner of Broadway and White Street. The plaza totals 0.075 acres, all of which is for passive uses. Features include large planters, a water fountain, a pergola covering a seating area with benches, and bike racks. The plaza is currently under renovation and thus has low utilization.

The public plaza surrounding the David M. Dinkins Municipal Building is a medium-sized space located south of the project site on the north, east, and south sides of the municipal building. The red brick plaza is 2.52 acres in size and is entirely passive in nature. Features of the plaza include huts serving food and beverages on the north and south sides of the building, moveable tables and chairs on the north side, a seating area with benches on the south side, large planters, benches, a large art sculpture, grassy areas, tree coverage, and chess tables. The plaza is in adequate condition and experiences medium utilization.

The building at 375 Pearl Street, to the south of the project site, also includes a POPS. This POPS totals 0.34 acres on the north, east, and south sides of the building. As this POPS is currently under reconstruction, the condition and utilization in the existing condition could not be established and it has not been included in the quantitative analysis of existing conditions.

Desalvio Playground totals 0.27 acres and is located to the north of the project site at the corner of Mulberry and Spring Streets. The playground is currently undergoing reconstruction with an anticipated completion in 2019, and when reconstructed will cater primarily to active uses but will also include passive spaces. Features of the reconstructed playground will include a basketball court, a horizontal climbing wall, playground equipment, spray showers, seating areas, and game tables. As this playground is currently under reconstruction, the condition and utilization in the existing condition could not be established and it has not been included in the quantitative analysis of existing conditions.

Lt. Petrosino Square is a small park also located to the north of the project site at the confluence of Lafayette Street, Cleveland Place, and Kenmare Street. The park totals 0.05 acres, all of which is for passive uses. Features include a seating area with benches, water fountains, and landscaped areas. The park is currently in good condition and experiences heavy utilization.

ADEQUACY OF OPEN SPACE RESOURCES

QUANTITATIVE ASSESSMENT

As described above, this analysis focuses on passive open space resources, as these are the open space resources that non-residents would be most likely to use. To assess the adequacy of the open space resources in the study area, the ratio of non-residents to acres of passive open space is compared with the City's planning goal of 0.15 acres of passive open space per 1,000 non-residents. The open space study area has an existing ratio of 0.363 acres of passive open space per 1,000 non-residents, which is above the City's planning goal (see **Table 4.3-3**).

Table 4.3-3
Existing Conditions: Adequacy of Open Space Resources

Total Population		Passive Open Space Acreage	Passive Open Space Ratio per 1,000 People	Open Space Goals
Non-Residents	36,876	13.39	0.363	0.15

Notes:
Ratios in acres per 1,000 people.
The City's open space ratio goals for total and active open spaces are not applicable to the proposed project under *CEQR Technical Manual* methodology, as the project would only be introducing a non-residential population to the study area.
Sources: NYC Parks; National Park Service; Field Surveys, July & October 2018; MapPLUTO.

QUALITATIVE ASSESSMENT

The 11 existing open spaces resources within the study area are varied in nature, range from large parks to small plazas, and include many passive features such as benches, plaza areas, and tables, and are generally in adequate to good condition. Utilization varies throughout the resources, from low to heavy utilization. These factors make the existing open space resources in the study area well suited to providing passive recreation opportunities for existing non-resident population in the study area.

D. THE FUTURE WITHOUT THE PROPOSED PROJECT

STUDY AREA NON-RESIDENTIAL POPULATION

PROJECT SITE

As described in Chapter 1, "Project Description," in the No Action condition, it is expected that no new construction would take place on the project site, and existing conditions would remain in place.

STUDY AREA

As discussed in Section 4.1, "Land Use, Zoning, and Public Policy-Manhattan," six development projects within the study area are currently planned or underway, and are expected to introduce non-residents by 2027, the proposed project's build year. The independent No Action condition projects within the study area are expected to introduce 224 additional non-residents to the study area by 2027.

Under the No Action condition, the non-residents from additional No Action projects (224) in the study area expected to be completed by 2027 would increase the non-residential population within the study area to 37,100.

STUDY AREA OPEN SPACE RESOURCES

No new open spaces are expected to be completed within the study area by 2027; however, the renovation of the POPS at 375 Pearl Street and the reconstruction of Desalvio Playground would be completed, and an additional 0.40 acres of passive open space would be available in the public in the study area. As a result, the total amount of open space in the study area would be 15.93 acres, including 2.14 acres of active open space and 13.79 acres of passive open space.

ADEQUACY OF OPEN SPACE RESOURCES

As shown on **Table 4.3-4**, the passive open space ratio within the study area would increase to 0.373 acres per 1,000 non-residents in the future without the proposed actions. Therefore, it would remain above the City's planning goal of 0.15 acres of passive open space per 1,000 non-residents.

Table 4.3-4
No Action Condition: Adequacy of Open Space Resources

Total Population		Passive Open Space Acreage	Passive Open Space Ratio per 1,000 People	Passive Open Space Goal
Non-Residential (¼-Mile) Study Area				
Non-Residents	37,100	13.79	0.372	0.15

Notes:
Ratios in acres per 1,000 people.
The City's open space ratio goals for total and active open spaces are not applicable to the proposed project under *CEQR Technical Manual* methodology, as the project would only be introducing a non- residential population to the study area.
Sources: NYC Parks; Field Surveys, July & October 2018; MapPLUTO.

E. THE FUTURE WITH THE PROPOSED PROJECT

The assessment of conditions in the future with the proposed project examines conditions that are expected to occur as a result of the proposed project. The capacity of open space resources to serve future populations in the study area is examined using quantitative and qualitative factors. The potential for direct effects on open space is also considered.

DIRECT EFFECTS

As described above in the discussion of methodology, direct adverse effects on an open space occur when a proposed project would cause the physical loss of public open space; change the use of an open space so that it no longer serves the same user population; limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis. Based on the analyses provided in Manhattan Sections 4.4, "Shadows," 4.10, "Air Quality," 4.11, "Noise," and 4.14, "Construction," study area open spaces would not experience project-related significant adverse shadows, air quality, or noise impacts. Therefore, the proposed project would not result in significant adverse impacts related to direct effects on open space.

STUDY AREA NON-RESIDENTIAL POPULATION

Under the With Action condition, the proposed project to construct a new detention facility in Manhattan would be completed by 2027 and the non-residential population in the study area would be expected to increase as a result. It is anticipated that the proposed project would introduce approximately daily 584 workers and 854 daily visitors to the project site. Compared with the No Action condition, this would represent an incremental increase of 676 additional non-residents to the study area.

STUDY AREA OPEN SPACE RESOURCES

The proposed project would not have an effect on existing or proposed open space resources on the project site or within the study area. The total amount of public open space within the study area would remain at 15.93 acres, including 2.14 acres of active open space and 13.79 acres of passive open space.

ADEQUACY OF OPEN SPACE RESOURCES

QUANTITATIVE ASSESSMENT

As shown in **Tables 4.3-5 and 4.3-6**, with a total non-residential population of 37,776 and 13.79 acres of passive open space, the passive open space ratio within the study area would decrease in the With Action condition compared with the No Action condition by approximately 1.9 percent. However, the With Action condition passive open space ratio of 0.365 would remain well above the City's planning goal of 0.15 acres of passive open space per 1,000 non-residents.

Table 4.3-5
With Action Condition: Adequacy of Open Space Resources

Total Population		Passive Open Space Acreage	Passive Open Space Ratio per 1,000 People	Passive Open Space Goal
Non-Residential (¼-Mile) Study Area				
Non-Residents	37,776	13.79	0.365	0.15

Notes:
Ratios in acres per 1,000 people.
The City's open space ratio goals for total and active open spaces are not applicable to the proposed project under *CEQR Technical Manual* methodology, as the project would only be introducing a non-residential population to the study area.
Sources: NYC Parks; Field Surveys, July & October 2018; MapPLUTO.

Table 4.3-6
Passive Open Space Ratios Summary

Ratio	City Goal (acres per 1,000 non-residents)	No Action Condition	With Action Condition	Percent Change
Passive	0.15	0.372	0.365	-1.9%

The *CEQR Technical Manual* indicates that a decrease in the open space ratio of 5 percent or more in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents would generally be considered a substantial change that requires a more detailed analysis. There would be a less than 5 percent decrease in the passive open space ratio in the With Action condition compared with that of the No Action condition, and at a passive open space ratio of 0.365, the study area's open space ratio would be approximately double the City's planning goal of 0.15 acres of passive open space per 1,000 non-residents. The anticipated effects of the proposed project on open space resources in the study area are discussed below in the qualitative assessment.

QUALITATIVE ASSESSMENT

The passive open space ratio of 0.365 with the proposed project would remain well above the ratio of 0.15 acres of passive open space per 1,000 non-residents recommended by the City. The public open space resources available to non-residents within the study area include both small and large resources, and as noted above, the field survey of open spaces suggests that most of the existing open space resources are not overcrowded by non-residents during the daytime. Most are in adequate to excellent condition, and would not be overburdened by the additional non-residential population that would be introduced to the study area by the proposed project. There are also additional passive open space resources located within a reasonable walk (¼ mile to ½ mile, or a 10- to 20-minute walk) just outside of the study area such as Sara D. Roosevelt Park, Kimlau Square, and the public plaza at 33 Thomas Street.

In addition, this analysis conservatively assumes that all workers and visitors to the proposed project at the Manhattan Site would generate open space demand. However, it is likely that open space demand from project-generated workers and visitors would be substantially lower than projected in this analysis.

Visitors to the proposed project would include lawyers, third-party contracted programming staff, medical deliveries, and other service providers. Family and friends of people in detention would also make up a portion of the visitor population. Many of these visitors would be visiting the project site as part of their occupational duties, and would be likely to move on to a subsequent work appointment rather than utilizing nearby public open space resources.

The proposed project would also include recreational and respite areas for facility staff. These spaces are expected to provide a mix of active and passive programing, including rooftop ball courts, seating, and places to read, eat, or talk on the phone. The proposed project would also provide a staff dining area. Together, this on-site recreational space for staff would reduce the proposed project's incremental demand for passive recreational open space within the study area. A sufficient amount of passive open space would remain in the study area to support the new non-residential population. Furthermore, the proposed project would not directly impact any open space resources and would not substantially burden nearby open spaces resources through the introduction of a new non-residential population.

F. CONCLUSION

Currently, the passive open space ratio in the study area for non-residential users is well above the guidelines indicated in the *CEQR Technical Manual*, and would remain well above the guidelines in both the No Action and With Action conditions. The proposed project would have the potential to result in a decrease in the passive open space ratio of less than 5 percent compared with the No Action condition, and the passive open space ratio would remain more than twice as high as the City's guideline. Open spaces within the study area that have low utilization and additional passive open space resources outside the study area would further reduce the potential effect of the additional demand generated by the proposed project. Therefore, the proposed project would not have the potential to result in significant adverse impacts on open space resources in the study area. ✷

A. INTRODUCTION

This section assesses the potential for the proposed facility at the Manhattan Site to cast new shadows that would adversely impact nearby sunlight-sensitive resources. Following the guidelines of the *City Environmental Quality Review (CEQR) Technical Manual*, sunlight-sensitive resources include publicly accessible parks and open space, features of historic resources that depend on sunlight, and natural resources that depend on sunlight. Therefore, this section is closely linked to the data and assessments presented in the Manhattan Site Sections 4.3, "Open Space" and 4.5, "Historic and Cultural Resources."

Per CEQR guidelines, an assessment of shadows is required if the proposed project would result in structures 50 feet or greater in height, or of any height if the project site is located adjacent to, or across the street from, a sunlight-sensitive resource. As discussed in Chapter 1, "Project Description," the proposed facility that would be constructed at the Manhattan Site would rise to a maximum envelope height of approximately 450 feet. Therefore, an analysis was conducted to assess potential shading effects on any sunlight-sensitive resources that could be reached by project-generated shadow.

PRINCIPAL CONCLUSIONS

The proposed project would cast new shadows on several open space resources and one historic resource. It was determined that the incremental shadow on these resources would not result in significant adverse impacts due to their limited duration and/or extent, and the specific character and sensitivity of each resource.

B. DEFINITIONS AND METHODOLOGY

This analysis has been prepared in accordance with New York City CEQR procedures and follows the guidelines of the 2014 *CEQR Technical Manual*.

DEFINITIONS

Incremental shadow is the additional, or new, shadow that a structure resulting from a proposed project would cast on a sunlight-sensitive resource.

Sunlight-sensitive resources are those that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Such resources generally include:

- *Public open space* such as parks, beaches, playgrounds, plazas, schoolyards (if open to the public during non-school hours), greenways, and landscaped medians with seating. Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources.
- *Features of architectural resources that depend on sunlight for their enjoyment by the public.* Only the sunlight-sensitive features need be considered, as opposed to the entire resource.

Such sunlight-sensitive features might include: design elements that depend on the contrast between light and dark (e.g., recessed balconies, arcades, deep window reveals); elaborate, highly carved ornamentation; stained glass windows; historic landscapes and scenic landmarks; and features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as a historic landmark.

- *Natural resources* where the introduction of shadows could alter the resource's condition or microclimate. Such resources could include surface water bodies, wetlands, or designated resources such as coastal fish and wildlife habitats.

Non-sunlight-sensitive resources include, for the purposes of CEQR:

- *City streets and sidewalks* (except Greenstreets);
- *Private open space* (e.g., front and back yards, stoops, vacant lots, and any private, non-publicly accessible open space);
- *Project-generated open space* cannot experience a significant adverse shadow impact from the project, according to CEQR, because without the project the open space would not exist. However, if the condition of project-generated open space is included in the qualitative analysis presented in the Open Space chapter of the EIS, a discussion of how shadows would affect the new space may be warranted.

A significant adverse shadow impact occurs when the incremental shadow added by a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources. Each case must be considered on its own merits based on the extent and duration of new shadow and an analysis of the resource's sensitivity to reduced sunlight.

METHODOLOGY

Following the guidelines of the *CEQR Technical Manual*, a preliminary screening assessment must first be conducted to ascertain whether a project's shadow could reach any sunlight-sensitive resources at any time of year. The preliminary screening assessment consists of three tiers of analysis. The first tier determines a simple radius around the proposed building representing the longest shadow that could be cast. If there are sunlight-sensitive resources within this radius, the analysis proceeds to the second tier, which reduces the area that could be affected by project shadow by accounting for the fact that shadows can never be cast between a certain range of angles south of the project site due to the path of the sun through the sky at the latitude of New York City.

If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by project shadow by looking at specific representative days in each season and determining the maximum extent of shadow over the course of each representative day.

If the third tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a detailed shadow analysis is required to determine the extent and duration of the incremental shadow resulting from the project. The detailed analysis provides the data needed to assess the shadow impacts. The effects of the new shadows on the sunlight-sensitive resources are described, and their degree of significance is considered. The results of the analysis and assessment are documented with graphics, a table of incremental shadow durations, and narrative text.

C. PRELIMINARY SCREENING ASSESSMENT

A base map was developed using Geographic Information Systems (GIS)[1] showing the location of the proposed project and the surrounding street layout (see **Figure 4.4-1**).[2] In coordination with the open space, historic and cultural resources, and other assessments presented in other sections of this EIS, potential sunlight-sensitive resources were identified and shown on the map.

TIER 1 SCREENING ASSESSMENT

For the Tier 1 assessment, the longest shadow that the proposed structure(s) could cast is calculated, and, using this length as the radius, a perimeter is drawn around the project site. Anything outside this perimeter representing the longest possible shadow could never be affected by project-generated shadow, while anything inside the perimeter needs additional assessment.

According to the *CEQR Technical Manual*, the longest shadow that a structure can cast at the latitude of New York City occurs on December 21, the winter solstice, at the start of the analysis day at 8:51 AM, and is equal to 4.3 times the height of the structure.

Therefore, at a maximum envelope height of approximately 450 feet above curb level, plus an additional 40 feet to conservatively allow for rooftop mechanical structures, the proposed facility could cast a shadow up to approximately 2,107 feet in length (490 x 4.3). Using this length as the radius, a perimeter was drawn around the project site (see **Figure 4.4-1**).

The Tier 1 assessment showed that a number of publicly accessible open spaces and historic resources with sun-sensitive features were located in the longest shadow study area. Therefore, the next tier of assessment was required.

TIER 2 SCREENING ASSESSMENT

Because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. **Figure 4.4-1** illustrates this triangular area south of the project site. The complementary area to the north within the longest shadow study area represents the remaining area that could potentially experience new project generated shadow.

The Tier 2 assessment showed that a number of publicly accessible parks and plazas were located in the remaining longest shadow study area. In addition, three historic resources with sun-sensitive features were located in the remaining shadow study area. Therefore, the next tier of assessment was required.

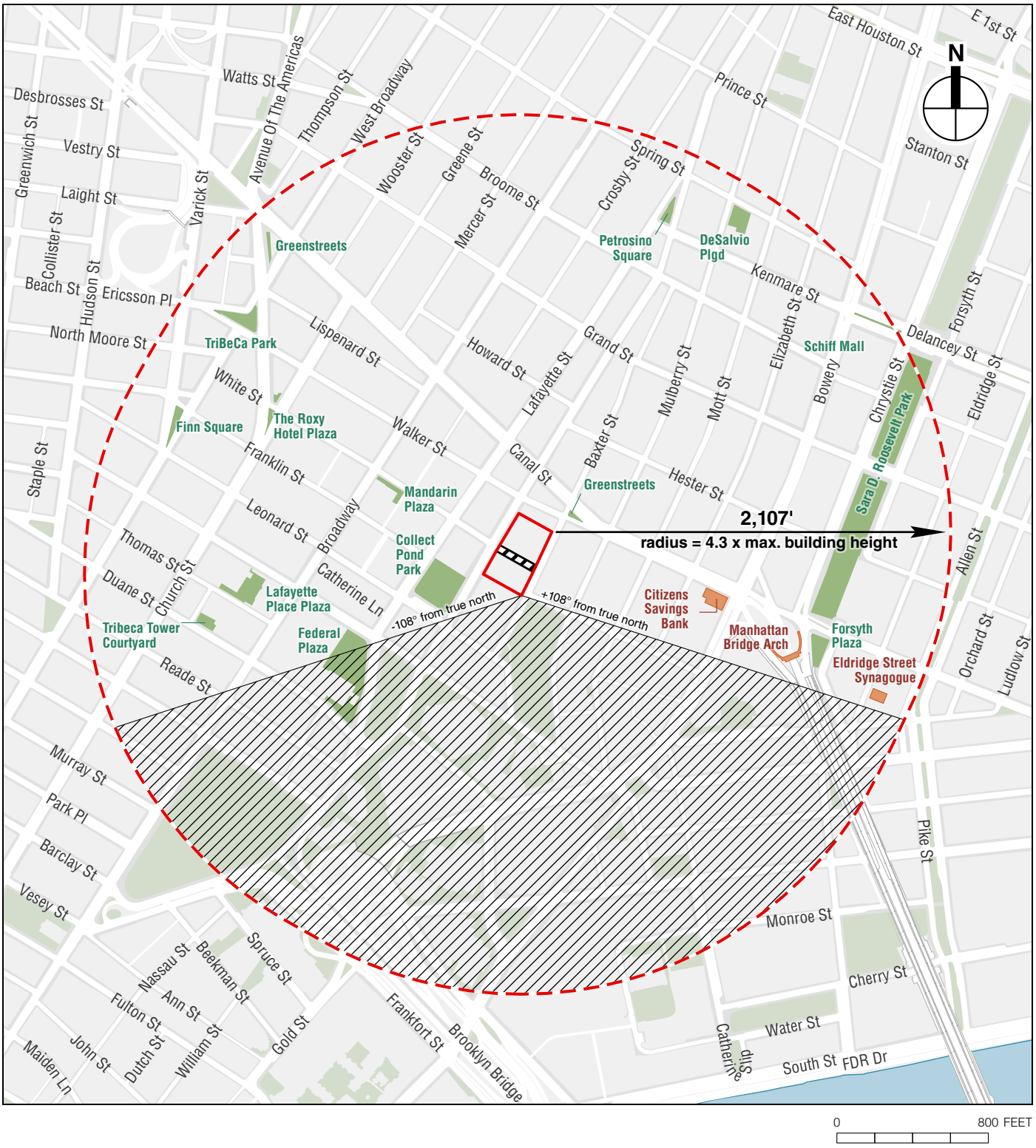
TIER 3 SCREENING ASSESSMENT

The direction and length of shadows vary throughout the course of the day and differ depending on the season. In order to determine whether project-generated shadow could fall on a sunlight-sensitive resource, three-dimensional (3D) computer modeling software[3] is used in the Tier 3 assessment to calculate and display the proposed project's shadows on individual representative days of the year. A computer model was developed containing three-dimensional representations of the elements in the base map used in the preceding assessments, the topographic information

[1] Software: Esri ArcGIS Pro; Data: New York City Department of Information Technology and Telecommunications (DoITT) and other City agencies, and AKRF site visits.

[2] All figures can be found at the end of this section.

[3] Bentley MicroStation.



Project Site

Proposed Demapped Area

Tier 1: Longest Shadow Study Area Perimeter

Tier 2: Area South of Site That Could Never Be Shaded by Proposed Facility

Publicly Accessible Open Space in Remaining Study Area

Historic Resources with Sun-Sensitive Features in Remaining Study Area

Tier 1 and Tier 2 Assessments
Manhattan Site - 124-125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-1

of the study area, and a reasonable worst-case three-dimensional representation of the proposed project.

REPRESENTATIVE DAYS FOR ANALYSIS

Following the guidance of the *CEQR Technical Manual*, shadows on the summer solstice (June 21), winter solstice (December 21) and spring and fall equinoxes (March 21 and September 21, which are approximately the same in terms of shadow patterns) are modeled, to represent the range of shadows over the course of the year. An additional representative day during the growing season is also modeled, generally the day halfway between the summer solstice and the equinoxes, i.e., May 6 or August 6, which have approximately the same shadow patterns.

TIMEFRAME WINDOW OF ANALYSIS

The shadow assessment considers shadows occurring between one and a half hours after sunrise and one and a half hours before sunset. At times earlier or later than this timeframe window of analysis, the sun is down near the horizon and the sun's rays reach the Earth at very tangential angles, diminishing the amount of solar energy and producing shadows that are very long, move fast, and generally blend with shadows from existing structures until the sun reaches the horizon and sets. Consequently, shadows occurring outside the timeframe window of analysis are not considered significant under CEQR, and their assessment is not required.

TIER 3 SCREENING ASSESSMENT RESULTS

The Tier 3 assessment showed that on the December 21 analysis day project-generated shadow would be long enough to reach a small portion of TriBeCa Park, a Greenstreets strip along Avenue of the Americas between Thompson Street and West Broadway in the morning, and a Greenstreets triangle at the intersection of Canal, Baxter, and Walker Streets in the afternoon. No other sunlight-sensitive resources would be affected on this analysis day.

On the March 21/September 21 analysis day, project-generated shadow could reach portions of Collect Pond Park and Mandarin Plaza (a privately owned but publicly accessible raised plaza fronting White Street east of Broadway) in the morning, and the aforementioned Greenstreets triangle at the intersection of Canal, Baxter, and Walker Streets in the afternoon. No other sunlight-sensitive resource would be affected on this analysis day.

On the morning of the May 6/August 6 analysis day, project-generated shadow would be long enough to reach Lafayette Place Plaza, a publicly accessible plaza, as well as portions of the aforementioned Mandarin Plaza and Collect Pond Park. In the afternoon, project-generated shadow would be long enough to reach the Greenstreets triangle at Canal, Baxter, and Walker Streets and, late in the afternoon, the Citizens Savings Bank, a historic building with sunlight-sensitive features located at Canal Street and the Bowery. No other sunlight-sensitive resource would be affected on this analysis day.

On the morning of the June 21 analysis day, project-generated shadow would be long enough to reach a portion of the plaza on the Lafayette Street side of the Jacob K. Javits Federal Building, as well as portions of a publicly accessible plaza called TriBeCa Tower Courtyard, Lafayette Place Plaza, and Collect Pond Park. In the afternoon, project-generated shadow would be long enough to reach the Greenstreets triangle at Canal, Baxter, and Walker Streets and, late in the afternoon, Forsyth Plaza at Canal and Forsyth Streets, a small portion of Sara D. Roosevelt Park, and two historic resources with sunlight-sensitive features: the Citizens Savings Bank and the Manhattan Bridge Arch. No other sunlight-sensitive resource would be affected on this analysis day.

In summary, absent intervening buildings, the Greenstreets triangle at the intersection of Canal, Baxter, and Walker Streets could be affected on four analysis days; Collect Pond Park could be affected on the three analysis days representing the spring, summer and fall; the Citizens Savings Bank could be affected on the two analysis days representing the May through August period; Mandarin Plaza could be affected on the March 21/September 21 and May 6/August 6 analysis days; Lafayette Plaza could be affected on the May 6/August 6 analysis day; the Jacob K. Javits Federal Building plaza, TriBeCa Tower Courtyard, Forsyth Plaza, a small portion of Sara D. Roosevelt Park, and the Manhattan Bridge Arch could be affected on the June 21 day; and TriBeCa Park and a Greenstreets strip at Avenue of the Americas and Canal Street could be affected on the winter analysis day. Therefore, a more detailed analysis was warranted for these resources on each relevant analysis day. No other sunlight-sensitive resources in the longest shadow study area required further analysis, as they could not receive project-generated shadow on any of the four analysis days.

D. DETAILED SHADOW ANALYSIS

The purpose of the detailed analysis is to determine the extent and duration of new incremental shadow that would fall on sunlight-sensitive resources as a result of the project, and to assess potential effects. The baseline or future No Action condition is established to illustrate the baseline shadows, and takes into account existing buildings and any future developments planned in the area. The future condition with the proposed project and its shadows can then be compared with the baseline condition to determine the incremental shadows that would result with the proposed project.

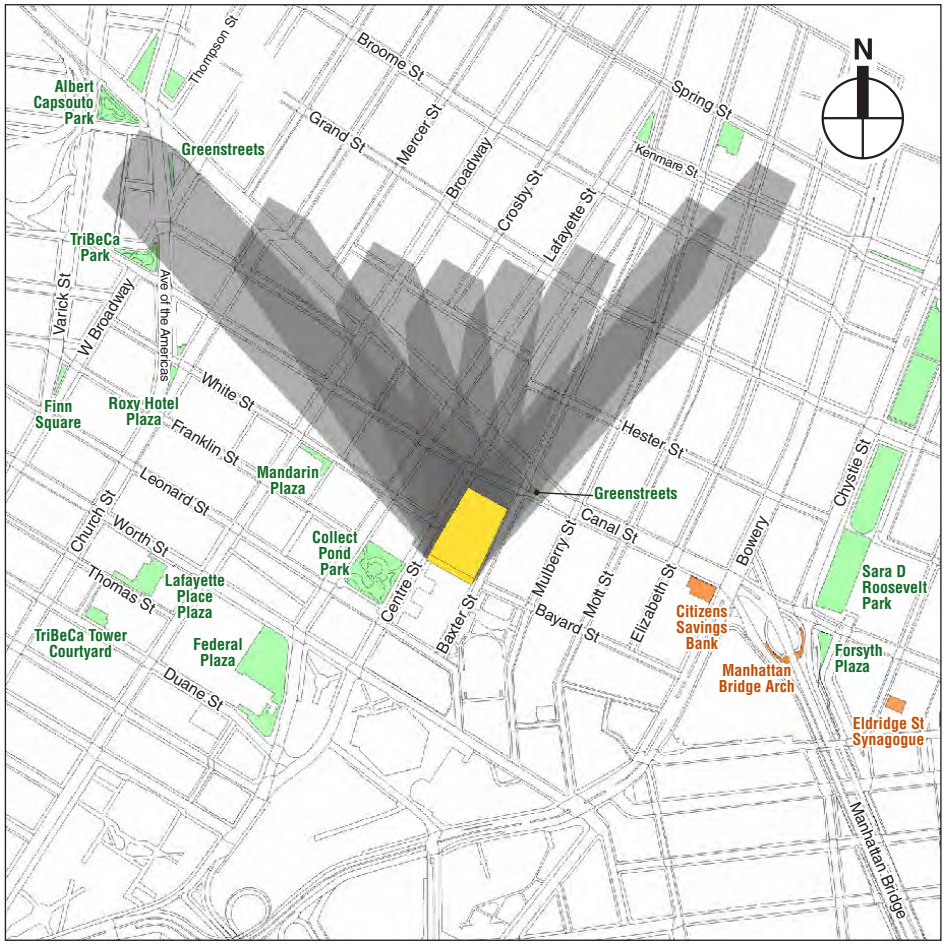
Following the analysis framework described in Chapter 1, "Project Description," the shadows assessment was performed for the analysis year of 2027, comparing the proposed project with the No Action condition in which the site would remain as in the existing condition.

Three-dimensional representations of the existing buildings in the study area were developed using data obtained from the New York City Department of Information Technology and Telecommunications (NYC DoITT), building plans on file with the City, and photos taken during project site visits, and were added to the three-dimensional model used in the Tier 3 assessment. Future planned developments were modeled from building plans on file with the City or other publicly available sources and added to the baseline model.

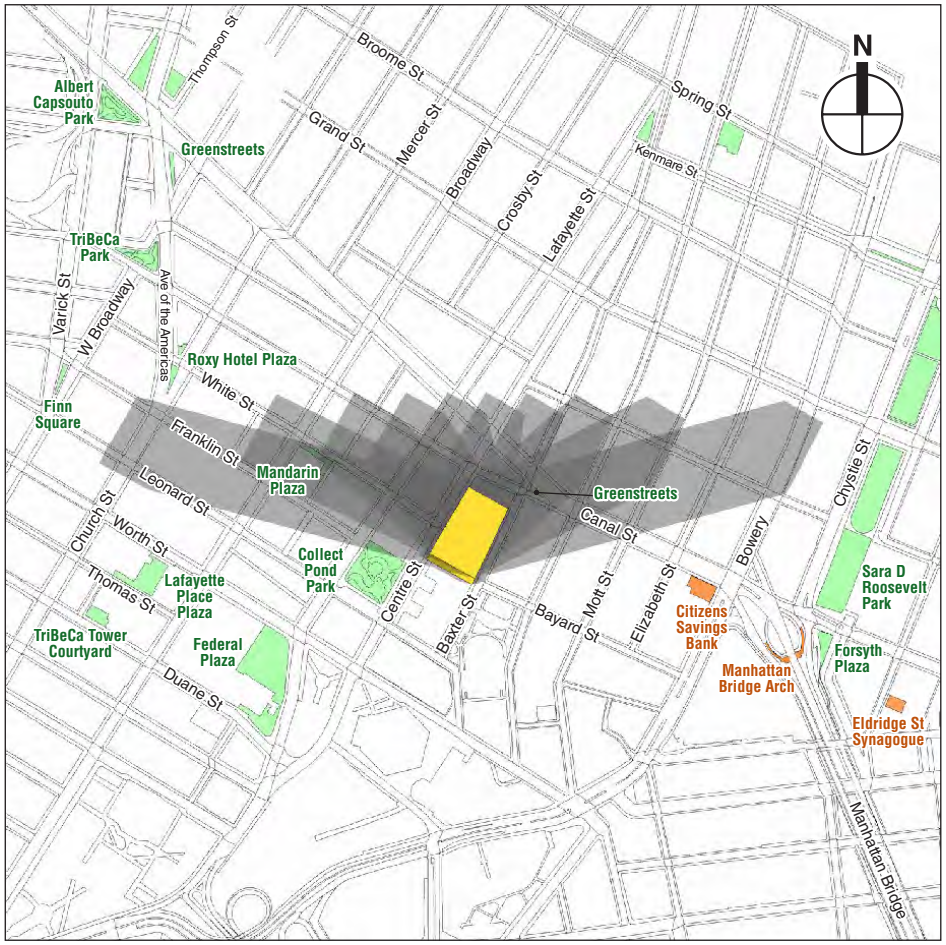
Shadows are in constant movement. The computer simulation software produces an animation showing the movement of shadows over the course of each analysis period. The analysis determines the time when incremental shadow would enter each resource, and the time it would exit.

Shadow analyses were performed for each of the representative days and analysis periods indicated in the Tier 3 assessment (see **Figures 4.4-2 and 4-4.3**).

The detailed analysis showed that four open space resources and one historic resource with sun-sensitive features would receive project-generated shadow on one or more analysis days. **Table 4.4-1** summarizes the entry and exit times and total duration of incremental shadows on each of the affected sun-sensitive resources. **Figures 4.4-4 through 4.4-19** document the results



December 21



March 21 / Sept. 21

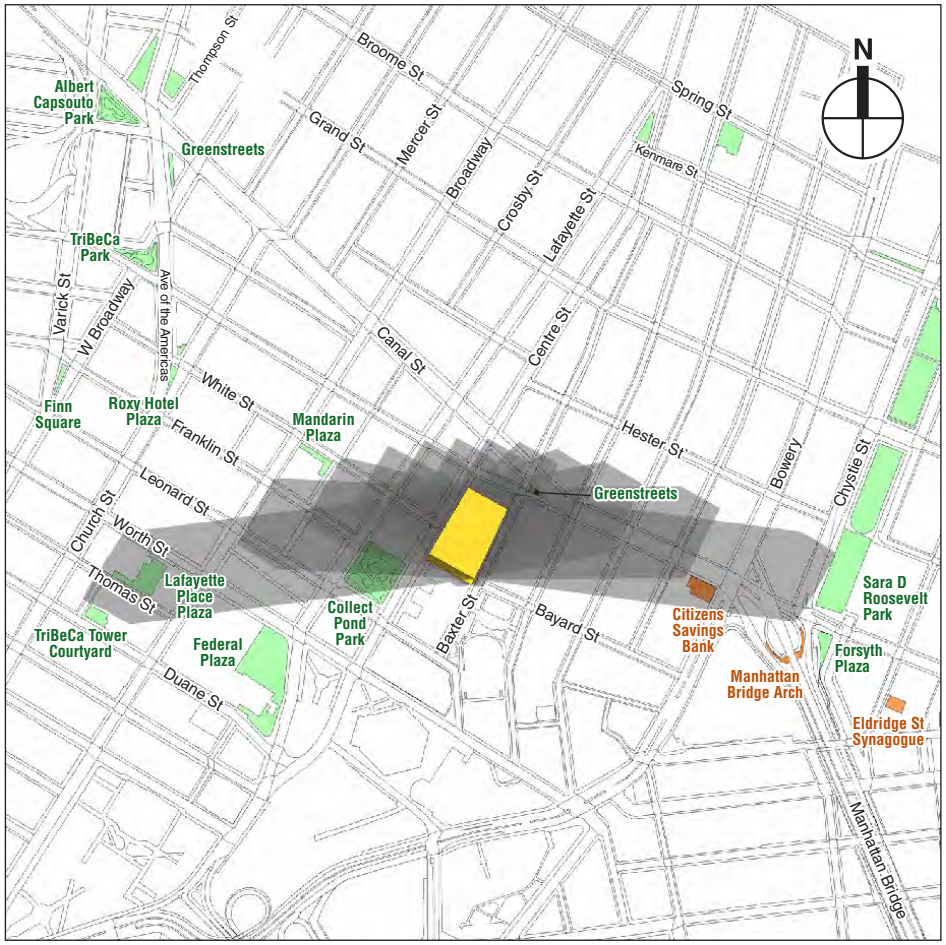
Publicly Accessible Open Space

Historic Resources with Sunlight-Sensitve Features

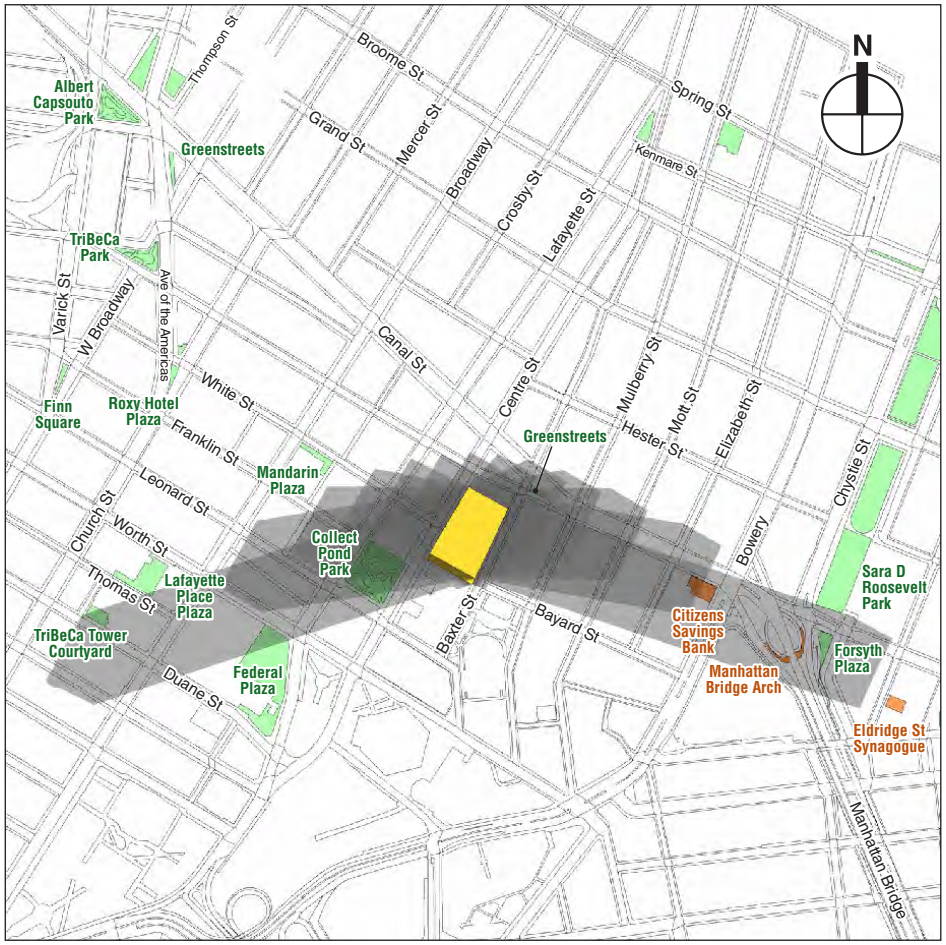
This figure illustrates the range of shadows that would occur, absent intervening structures, from the proposed building on the winter solstice and spring/fall equinox analysis days. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset). The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed building's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings, by project-generated shadow. Daylight Saving Time was not used, per CEQR Technical Manual guidelines.

Tier 3 Assessment

Figure 4.4-2



May 6 / August 6



June 21

Publicly Accessible Open Space

Historic Resources with Sunlight-Sensitve Features

This figure illustrates the range of shadows that would occur, absent intervening structures, from the proposed building on the May 6/August 6 and summer solstice analysis days. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset). The Tier 3 assessment serves to illustrate the daily path or "sweep" of the proposed building's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings, by project-generated shadow. Daylight Saving Time was not used, per CEQR Technical Manual guidelines.

3.6.19

No Action

Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

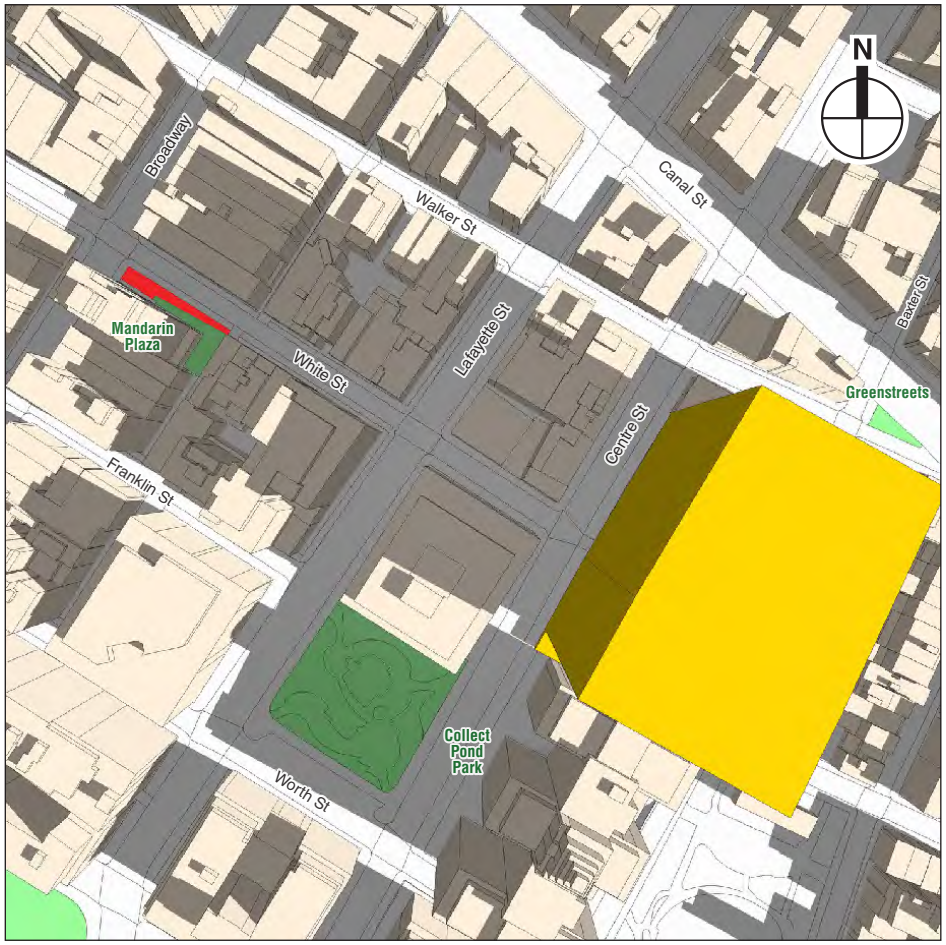
March 21 / Sept. 21 - 8:00 AM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-4

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

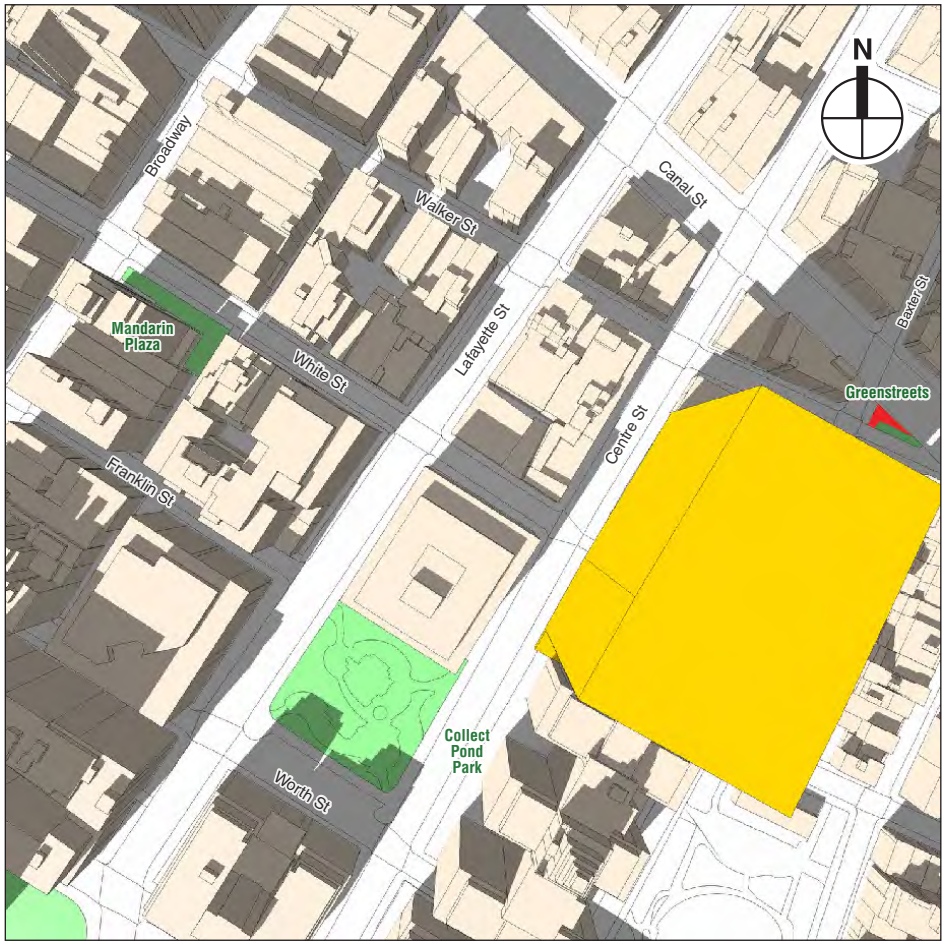
March 21 / Sept. 21 - 8:45 AM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-5

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

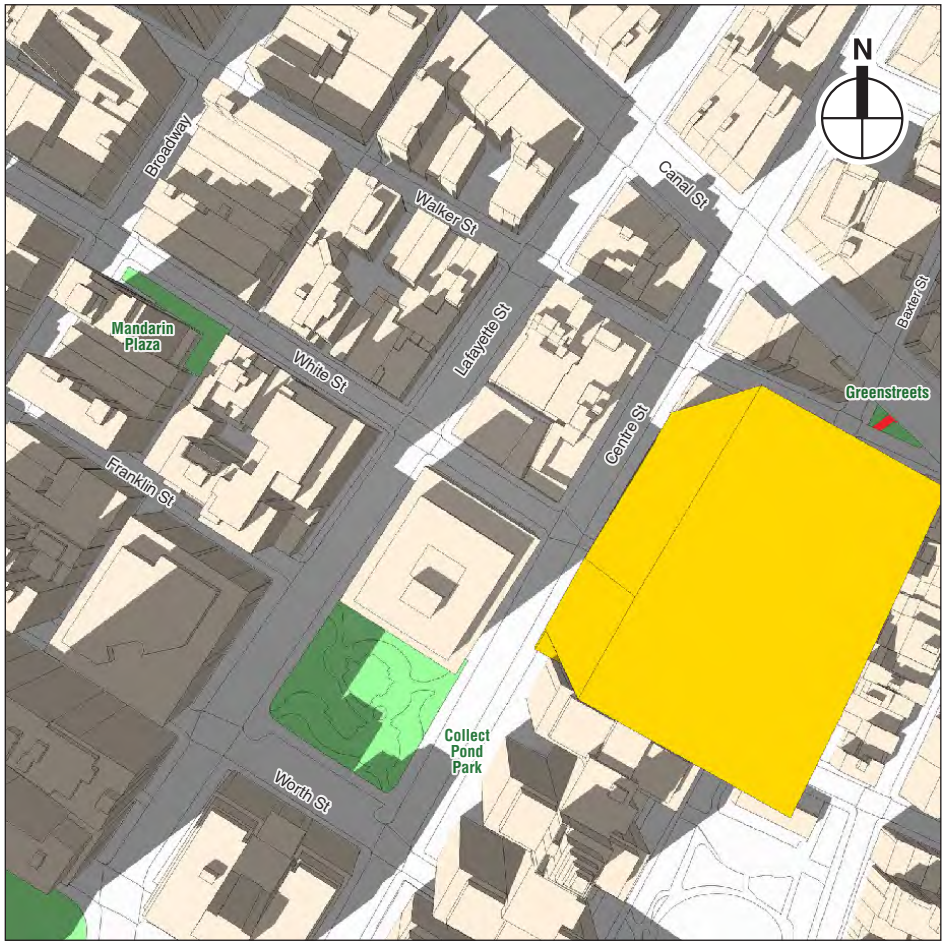
March 21 / Sept. 21 - 2:00 PM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-6

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

March 21 / Sept. 21 - 2:45 PM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-7

3.6.19

No Action

Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

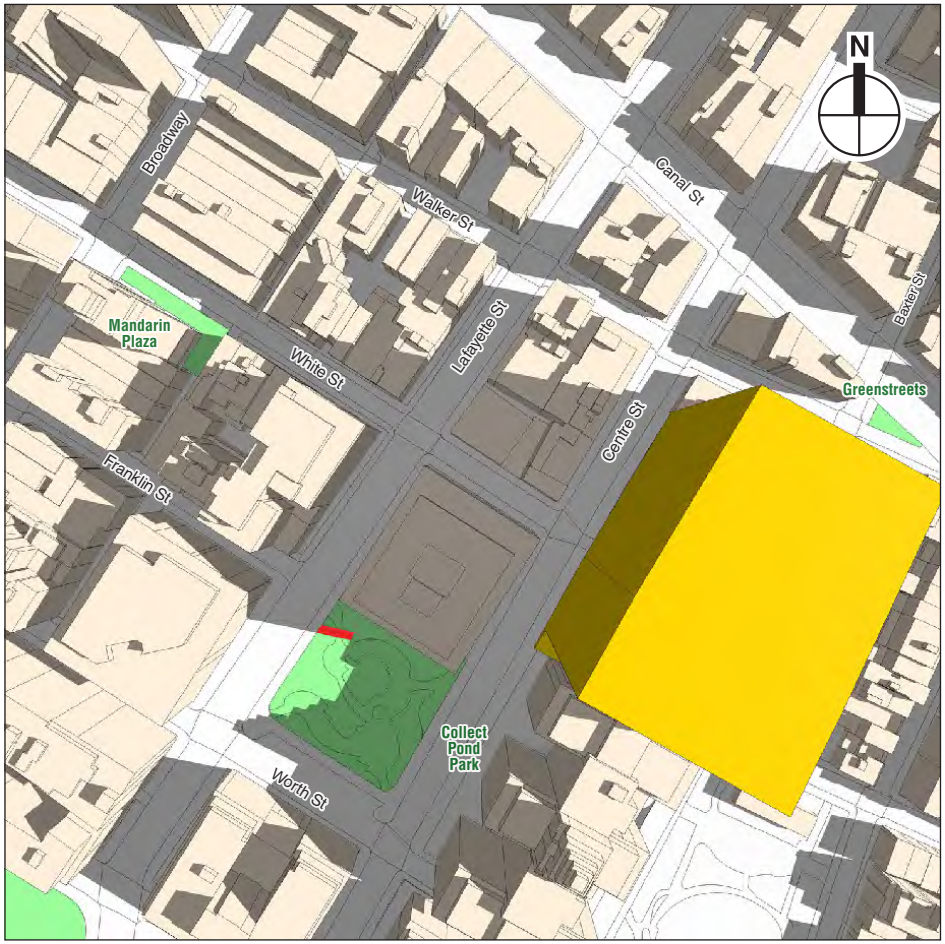
Existing Building

Proposed Building

May 6 / August 6 - 8:05 AM

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

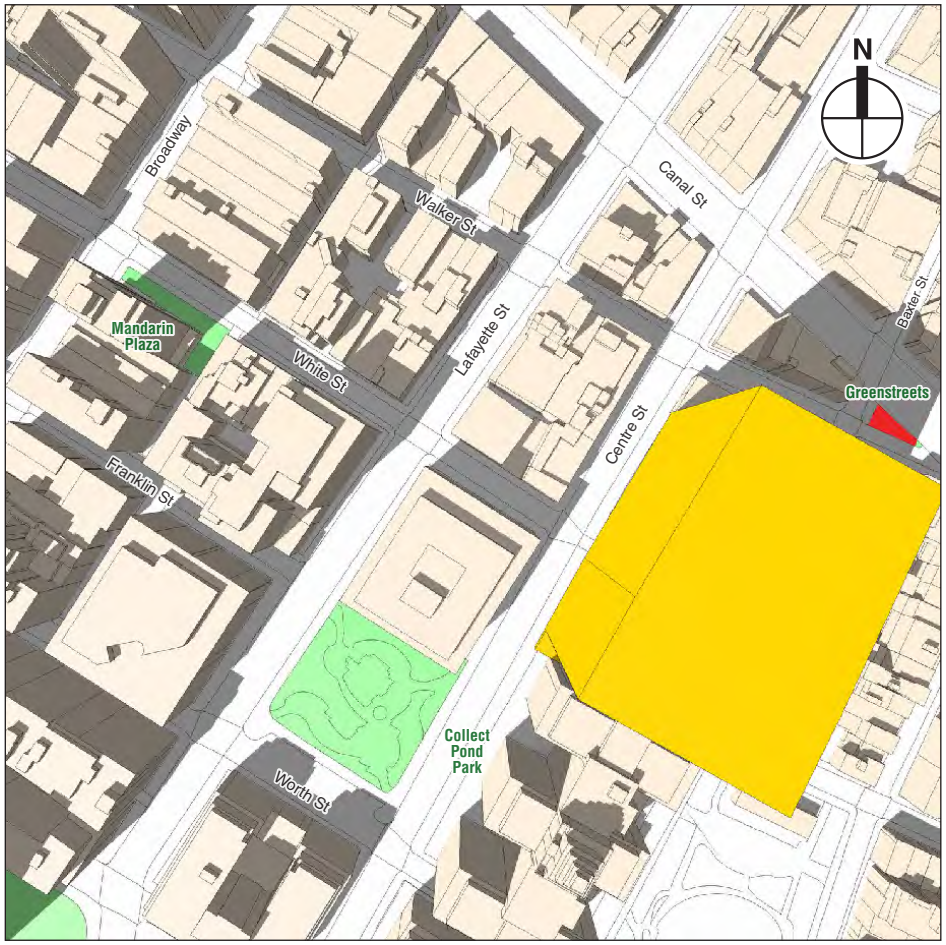
May 6 / August 6 - 8:20 AM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-9

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

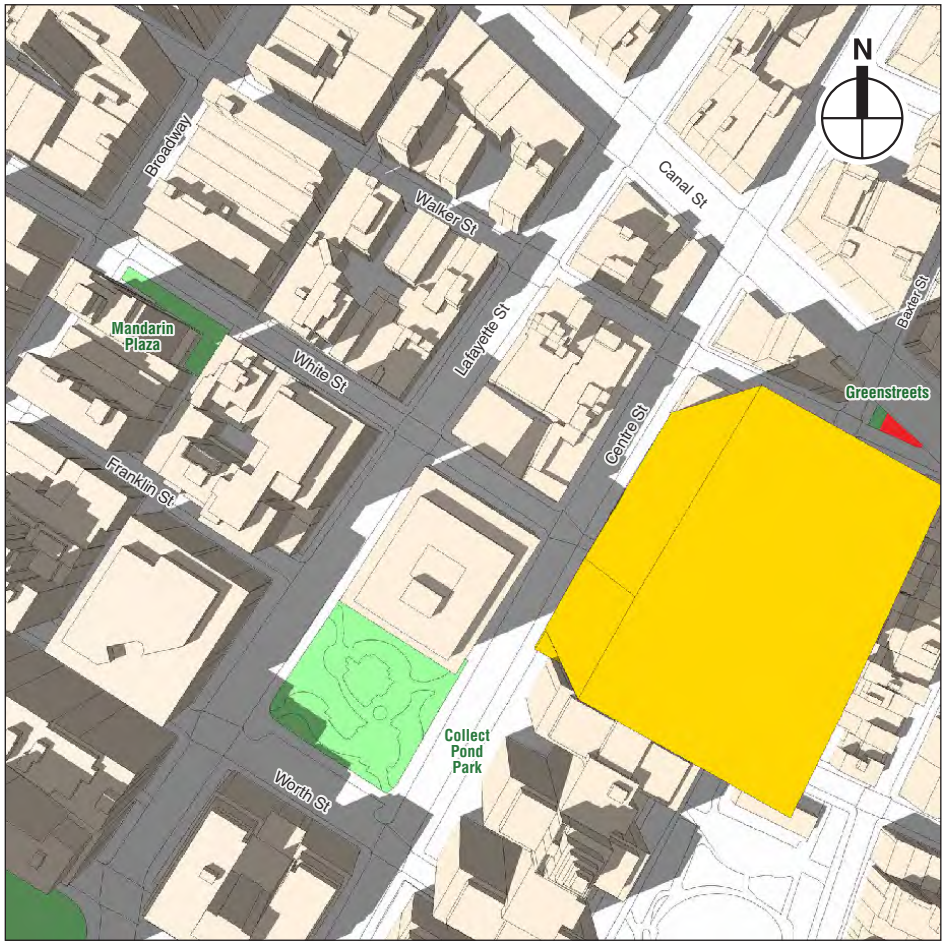
May 6 / August 6 - 1:30 PM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-10

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

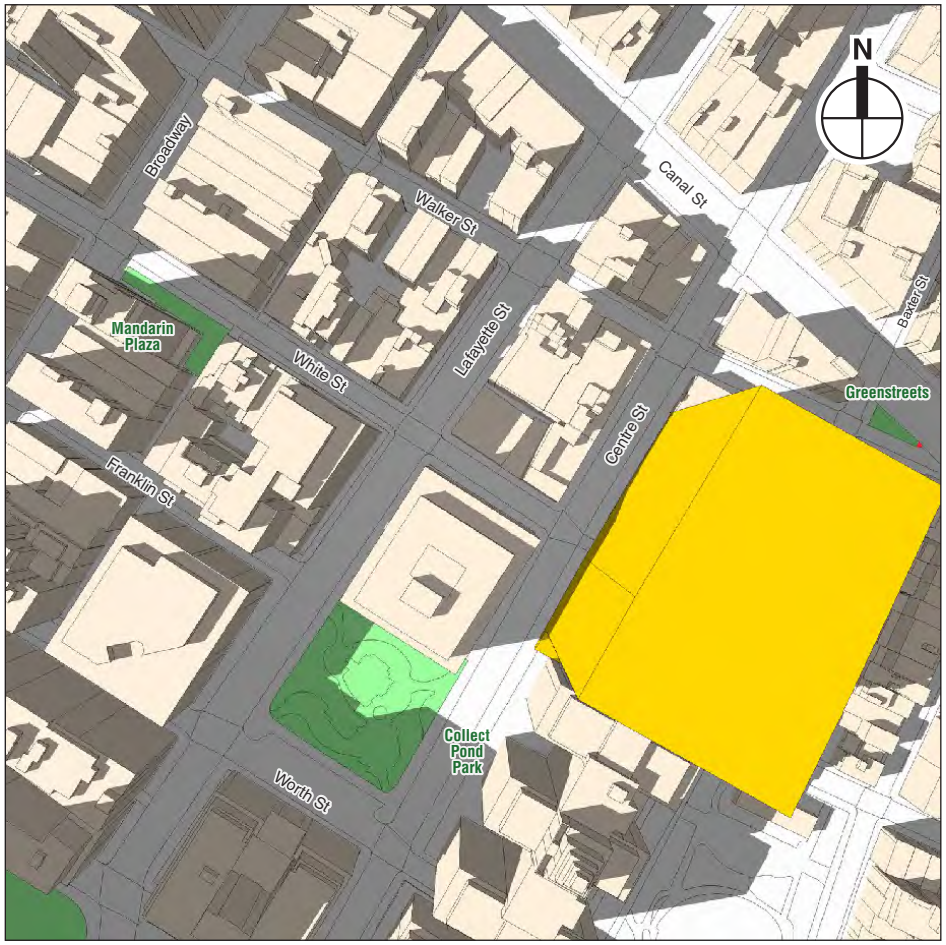
May 6 / August 6 - 2:30 PM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-11

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

May 6 / August 6 - 3:30 PM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-12

3.6.19

No Action

Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

June 21 - 7:15 AM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-13

3.6.19

No Action

Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

June 21 - 8:00 AM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-14

3.6.19

No Action

Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

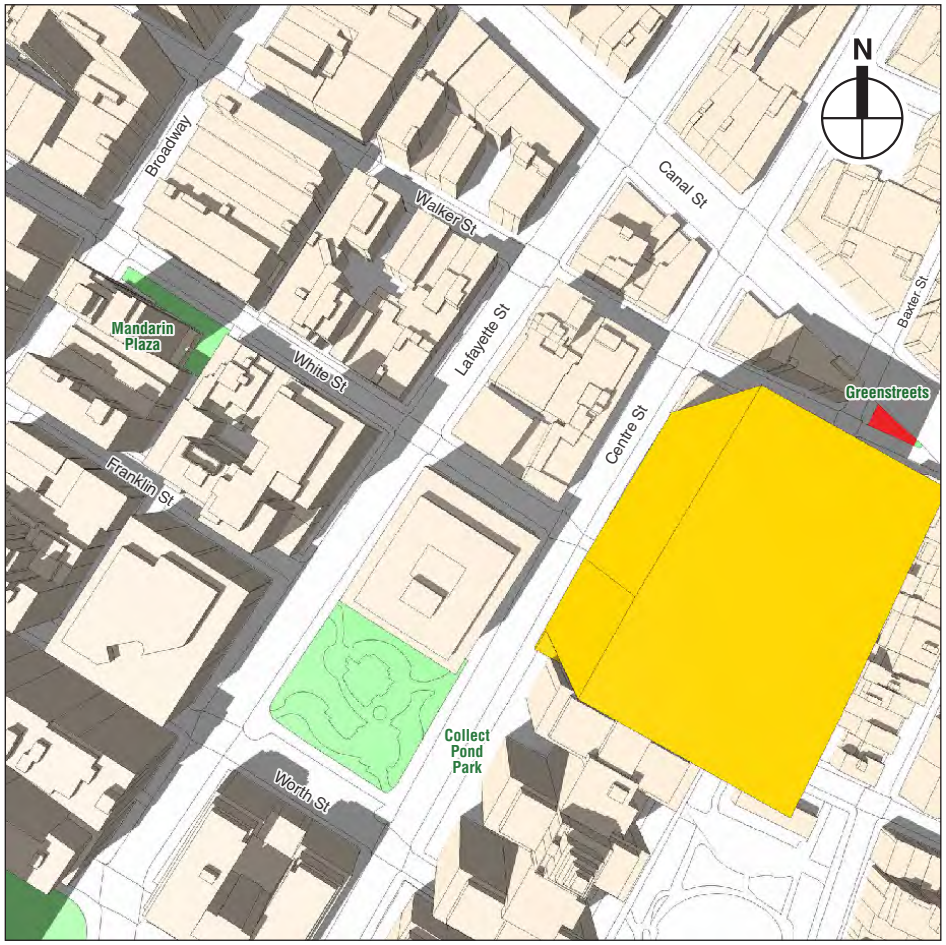
June 21 - 8:45 AM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-15

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

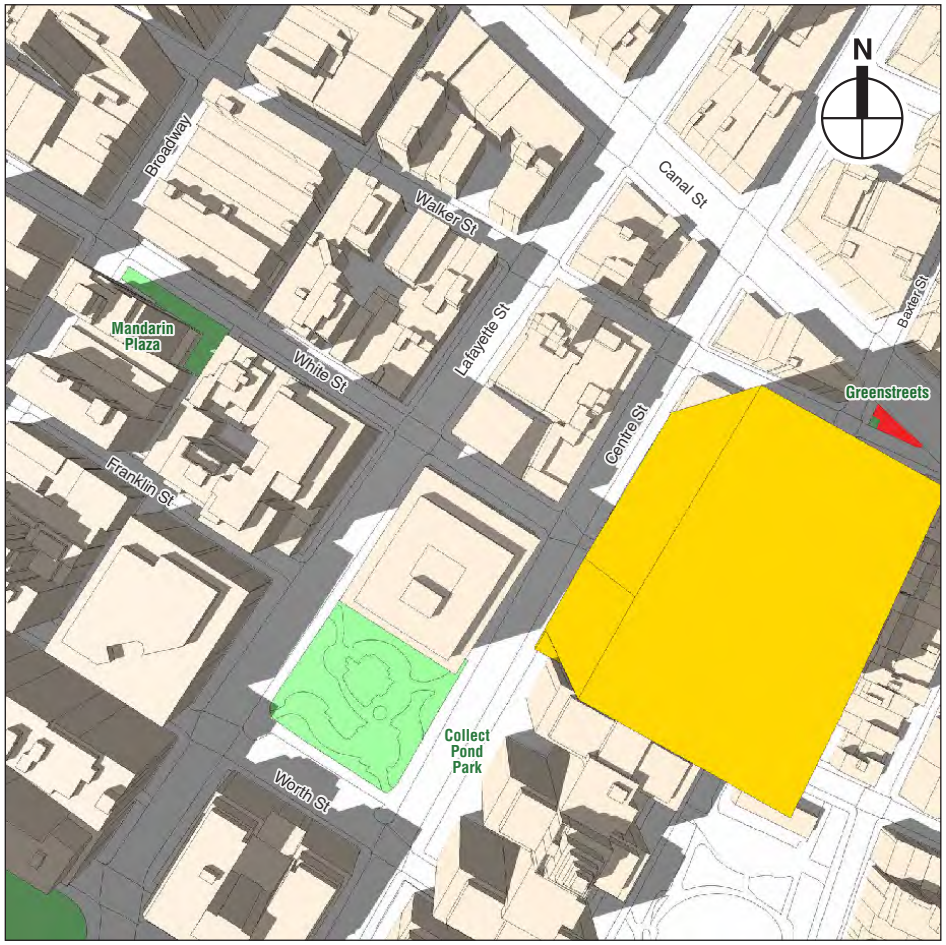
June 21 - 1:30 PM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-16

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

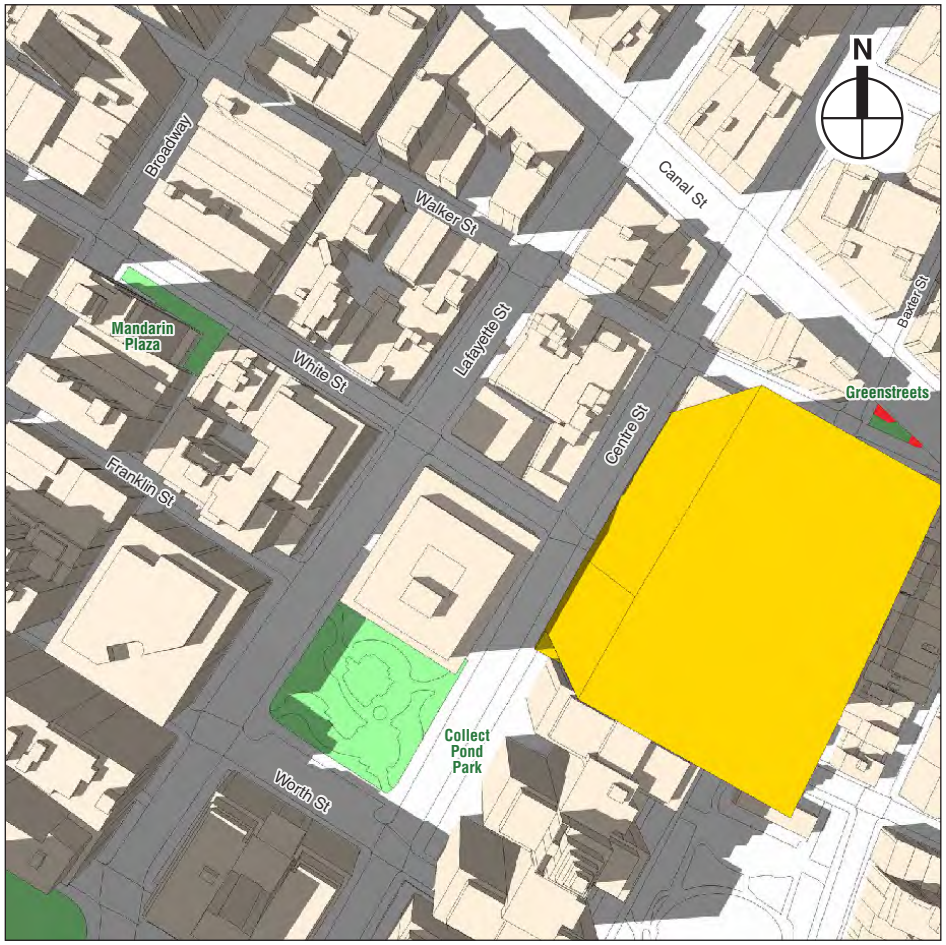
June 21 - 2:30 PM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-17

3.6.19

No Action



Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

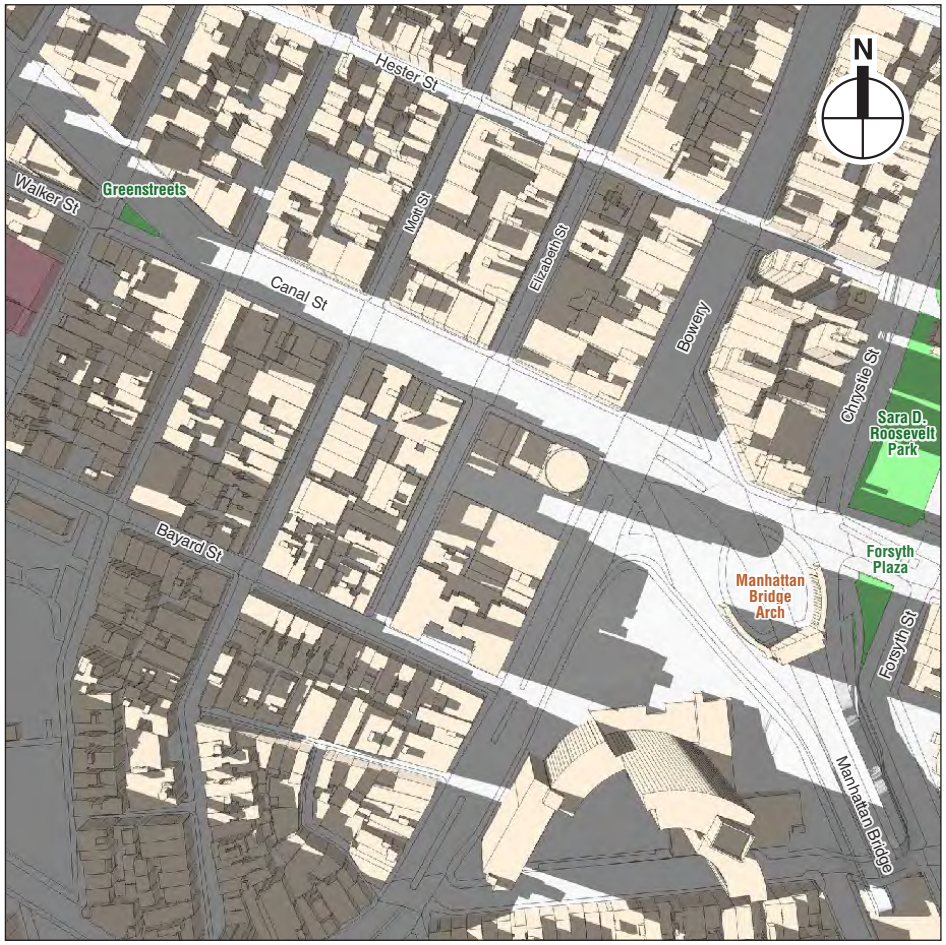
Proposed Building

June 21 - 3:30 PM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-18

3.6.19



No Action

Proposed Building Envelope

Publicly Accessible Open Space

Incremental Shadow on Sunlight-Sensitive Resource

Existing Building

Proposed Building

June 21 - 6:00 PM

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.4-19

Table 4.4-1
Incremental Shadow Durations on Sunlight-Sensitive Resources

Analysis day and timeframe window	December 21 8:51 AM–2:53 PM	March 21/Sept. 21 7:36 AM–4:29 PM	May 6/August 6 6:27 AM–5:18 PM	June 21 5:57 AM–6:01 PM
Open Spaces				
Collect Pond Park	—	—	7:55 AM–8:25 AM Duration: 30 min	7:00 AM–9:05 AM Duration: 2 hr 5 min
Mandarin Plaza	—	7:36 AM–9:06 AM Duration: 1 hr 30 min	8:12 AM–8:18 AM Duration: 6 min	—
Greenstreets triangle at Canal, Baxter, and Walker Streets	—	1:35 PM–3 :10 PM Duration: 1 hr 35 min	1:05 PM–3 :35 PM Duration: 2 hr 30 min	1:00 PM–4:05 PM Duration: 3 hr 5 min
Forsyth Plaza	—	—	—	5:49 PM–6:01 PM Duration: 12 min
Historic Resources				
Manhattan Bridge Arch	—	—	—	5:38 PM–6:01 PM Duration: 23 min

Notes:

Table indicates entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.

Daylight saving time is not used—times are Eastern Standard Time, per *CEQR Technical Manual* guidelines. However, as Eastern Daylight Time is in effect for the March/September, May/August, and June analysis periods, add 1 hour to the given times to determine the actual clock time.

of the analysis by providing graphic representations from the computer animation of times when incremental shadow would fall on a sun-sensitive resource. No incremental shadow would fall on any sun-sensitive resource on the December 21 analysis day. **Figures 4.4-4 to 4.4-7** show the March 21/September 21 analysis day, **Figures 4.4-8 to 4.4-12** show the May 6/August 6 analysis day, and **Figures 4.4-13 to 4.4-19** show the June 21 analysis day. The figures illustrate the extent of additional, incremental shadow at that moment in time, highlighted in red, and show existing shadow and remaining areas of sunlight.

The other five open space resources identified in the Tier 3 assessment would never receive project-generated incremental shadow, because baseline shadows from existing intervening buildings cover the areas where incremental shadow would otherwise fall. Similarly, the other historic resource identified in the Tier 3 assessment, the Citizens Savings Bank, would not receive incremental shadow because the sunlight-sensitive feature was a window that faced away from the project and could not be shaded by the project.

DETERMINATION OF IMPACT SIGNIFICANCE

The determination of significance of shadow impacts on a sunlight-sensitive resource is based on (1) the information resulting from the detailed shadow analysis describing the extent and duration of incremental shadows; and (2) an analysis of the resource's sensitivity to reduced sunlight. The goal of the assessment is to determine whether the effects of incremental shadows on a sunlight-sensitive resource are significant under CEQR.

A shadow impact occurs when the incremental shadow from a proposed project falls on a sunlight-sensitive resource or feature and reduces its direct sunlight exposure. Determining whether this impact is significant or not depends on the extent and duration of the incremental shadow and the specific context in which the impact occurs.

Per CEQR, a significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight sensitive resource and results in one of the following:

VEGETATION:

- A substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the future without the proposed actions). In the growing season, 4 to 6 hours a day of sunlight is a minimum requirement.
- A reduction in direct sunlight exposure where the sensitive feature of the resource is already subject to substandard sunlight (i.e., less than the minimum time necessary for its survival).

HISTORIC AND CULTURAL RESOURCES:

- A substantial reduction in sunlight available for the enjoyment or appreciation of the sunlight-sensitive features of a historic or cultural resource.

OPEN SPACE UTILIZATION:

- A substantial reduction in the usability of open space as a result of increased shadows.

FOR ANY SUNLIGHT-SENSITIVE FEATURE OF A RESOURCE:

- Complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

SHADOW EFFECTS BY OPEN SPACE RESOURCE

COLLECT POND PARK

Collect Pond Park is located to the northwest of the project site between White, Centre, Leonard, and Lafayette Streets. Features include a scenic pond, a plaza area, planters, water fountains, tree coverage, tables, and benches.

On the May 6/August 6 analysis day, incremental shadow would fall briefly on a small area near the western boundary of the park, from 7:55 AM to 8:25 AM (see **Figures 4.4-8 and 4.4-9**). The extent of incremental shadow would remain small throughout the 30-minute period, as shown on the figures. A substantial sunlit area would remain in the park throughout this duration for users seeking sunlight, and the vegetation in the affected area would continue to get enough sunlight over the course of the analysis day (6:27 AM to 5:18 PM). Therefore, the incremental shadow would not cause a significant adverse impact to the park on this analysis day.

On the June 21 analysis day, the entire park would be in existing shadows early in the morning, until 7:00 AM. From 7:00 AM to 7:35 AM incremental shadow would cover the small area that would otherwise be in sunlight (see **Figure 4.4-13**). From 7:35 AM to 9:05 AM the area of incremental shadow would move north (clockwise relative to the proposed building) across the western side of the park, covering a larger area for a time (see **Figure 4.4-14** showing 8:00 AM) and a then a smaller area (see **Figure 4.4-15** showing 8:45 AM). A portion of the park would be in sun during this period from 7:35 AM to 9:05 AM for users seeking sun. The incremental shadow would move across the park covering different areas at different times. The vegetation in the affected areas would continue to receive adequate sunlight over the course of the analysis day (5:57 AM to 6:01 PM). Therefore, the incremental shadow would not cause a significant adverse impact to the park on this analysis day.

MANDARIN PLAZA

The Mandarin Plaza privately owned public space (POPS) is located northwest of the project site on the southeast corner of Broadway and White Street. It is linear in shape, with the usable area extending approximately 140 feet along White Street and approximately 18 to 20 feet deep between the sidewalk and the residential high-rise with which it is associated. The plaza's features include large planters, a water fountain, a pergola covering a seating area with benches, and bike racks. The plaza is currently under renovation and thus has low utilization.

On the March 21/September 21 analysis day, incremental shadow would pass across this plaza from 7:36 AM to 9:00 AM, eliminating the remaining area of sun during this approximately hour and a half period (see **Figures 4.4-4 and 4.4-5** showing 8:00 AM and 8:45 AM). While this could potentially make the plaza less attractive to any users during this time, it is likely that usage would be low at this early hour, given that the area is primarily commercial and civic in character. Linear in shape and located on the north side of the block, this plaza, like many in Lower and Midtown Manhattan, is mostly or entirely shady throughout the day, and is not a destination space for users seeking sunlight. Therefore, the incremental shadow would not significantly alter the usability or character of this plaza during the effected period. Regarding vegetation, many of the plants would receive up to an hour of new shadow on this analysis day, as the incremental shadow passed across the plaza. However, as noted below, incremental shadow on the May 6/August 6 analysis day would be limited to 25 minutes and only fall on the eastern end of the plaza, and no incremental shadow would occur on June 21. With minimal or no incremental shadow throughout the May to August heart of the growing season, the hour of incremental shadow on March 21/September 21would not significantly impact the health of the vegetation in the planters.

On the May 6/August 6 analysis day, only a small area of the plaza on the eastern side would receive incremental shadow, and the duration would be limited to six minutes, 8:12 AM to 8:18 AM (see **Figure 4.4-9**). Large areas of the plaza would remain in sun during this period.

GREENSTREETS TRIANGLE AT CANAL, BAXTER, AND WALKER STREETS

This triangle-shaped traffic median at the intersection of Canal, Baxter and Walker Streets is paved except for a rectangular planted area with five ginkgo trees on the eastern half. The western half contains an information kiosk. There is no seating or other usable features.

This median would receive between approximately two and three hours of incremental shadow in the spring, summer and fall, depending on the analysis day. See **Figures 4.4-6 and 4.4-7** for March 21/September 21, Figures **4.4-11 and 4.4-12** for May 6/August 6, and Figures **4.4-16 and 4.4-18** for June 21. The entire median would be in incremental shadow for much of this duration on each analysis day.

Ginkgo trees are tolerant of shady conditions. Further, the median would get six or more hours of direct sunlight throughout the May to August heart of the growing season, enough even for species requiring full sun. On the March 21/September 21 analysis day incremental shadow would fall almost entirely on the western half where the information kiosk is located. Given all these factors, the incremental shadow would not cause a significant adverse impact to this Greenstreets median on any analysis day.

FORSYTH PLAZA

Incremental shadow would fall on a very small area of Forsyth Park for the final 12 minutes of the June 21 analysis day, 5:49 PM to 6:01 PM, as shown in **Figure 4.4-19**. The extent would

remain minimal throughout the short duration, and the incremental shadow would not cause a significant adverse impact to this plaza.

SHADOW EFFECTS BY HISTORIC RESOURCE

MANHATTAN BRIDGE ARCH AND COLONNADE

The Manhattan Bridge arch and colonnade—which have been designated as a New York City Landmark and are listed on the State and National Registers of Historic Places—were completed in 1915. For the purpose of a conservative analysis, the colonnade and arch are considered sunlight-sensitive architectural features.

On the June 21 analysis day incremental shadow would fall on portions of the arch and colonnade for the final 23 minutes of the analysis day, 5:38 PM to 6:01 PM (see **Figure 4.4-19** showing 6:00 PM). The incremental shadow would not cover the entire arch until the final minute of this period.

The arch and colonnade provide a prominent gateway to and from Manhattan primarily due to their scale, design, and material. While the colonnade and arch do benefit somewhat from direct sunlight and the resulting contrast of light and shadow, the 23 minutes of incremental shadow from the proposed project would not significantly impact the architectural significance or public enjoyment of this resource.

E. CONCLUSIONS

The proposed project would cast new shadows on several open space resources and one historic resource. It was determined that the incremental shadow on these resources would not result in significant adverse impacts due to their limited duration and/or extent, and the specific character and sensitivity of each resource. ✷

Section 4.5: Historic and Cultural Resources-Manhattan

A. INTRODUCTION

This analysis considers the potential for the proposed project to affect historic and cultural resources, which include both architectural and archaeological resources, at the Manhattan Site at 124 White Street (Block 198, Lot 1) and 125 White Street (Block 167, part of Lot 1).

The 2014 *City Environmental Quality Review (CEQR) Technical Manual* identifies historic and cultural resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes designated New York City Landmarks (NYCL); properties calendared for consideration as landmarks by the New York City Landmarks Preservation Commission (LPC); properties listed on the State or National Registers of Historic Places (S/NR) or contained within a S/NR-listed district or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks; and properties not identified by one of the programs listed above, but which meet their eligibility requirements.

According to the 2014 *CEQR Technical Manual*, a historic and cultural resources assessment is required if there is the potential to affect either archaeological or architectural resources of historic importance. Actions that could affect archaeological resources that typically require an assessment are those that involve ground disturbance, or below ground construction and excavation. Actions that trigger an architectural resources assessment include new construction, demolition, or significant alteration to any historic building, structure, or object; a change in scale, visual prominence, or visual context of any historic building, structure, or object or landscape feature; construction, including but not limited to excavation, vibration, subsidence, dewatering, and the possibility of falling objects that could damage a historic resource; additions to or significant removal, grading, or replanting of significant historic landscape features; screening or elimination of publicly accessible views of a historic resource; and the introduction of significant new shadows or significant lengthening of the duration of existing shadows over a historic landscape or on a historic structure with sunlight-dependent features.

The analysis presented in this section characterizes existing conditions, evaluates changes to historic and cultural resources that are expected to occur independent of the proposed actions in the future without the proposed project (the No Action condition), and identifies and addresses any potential impacts to historic and cultural resources associated with the proposed project in the future with the proposed project) (the With Action condition).

PRINCIPAL CONCLUSIONS

ARCHAEOLOGICAL RESOURCES

The study area for archaeological resources includes those areas that would be disturbed by subsurface excavation and, for the purposes of this analysis, includes the project site at 124

White Street (Block 198, Lot 1) and 125 White Street (Block 167, part of Lot 1). In a comment letter dated August 8, 2018, LPC determined that the Manhattan Site is potentially archaeologically significant (see **Appendix D**) and requested that an archaeological documentary study be prepared to further clarify these initial findings. Pursuant to LPC's request, a Phase 1A Archaeological Documentary Study ("Phase 1A Study") of was prepared by AKRF in October 2018 to determine the extent to which the study area may be archaeologically sensitive. At the time of the preparation of the Phase 1A Study, the Manhattan Site included 125 White Street (Block 167, part of Lot 1) as well as 80 Centre Street (Block 166, Lot 27) and the streetbed of Hogan Place, which have since been removed from the proposed project. A Supplemental Phase 1A Study was prepared by AKRF in December 2018 that assessed the archaeological sensitivity of 124 White Street (Block 198, Lot 1) and the streetbed of White Street between Centre Street and Baxter Street. This chapter addresses only the sensitivity determinations made for 124 and 125 White Street and the streetbed of White Street as described in the Phase 1A Study and the Supplemental Phase 1A Study.

Southern Portion of the Project Site: 125 White Street

The Phase 1A Study concluded that given the extensive disturbance associated with the construction of the existing building on the 125 White Street site, it is not sensitive for archaeological resources dating to either the precontact or historic periods. In a comment letter dated November 21, 2018 (see **Appendix D**), LPC concurred with the conclusions and recommendations of the Phase 1A Study. Therefore, no additional archaeological analysis is warranted for the southern portion of the project site on Block 167, Lot 1.

Northern Portion of the Project Site: 124 White Street

The Supplemental Phase 1A Study determined that the portion of the site at 124 White Street within the footprint of the existing Manhattan Detention Center (MDC) North Tower is not sensitive for archaeological resources. However, there is a slight chance that undisturbed deeply buried precontact resources could be present within the southwestern portion of the project site outside the footprint of the existing building, as this area may not have been fully disturbed as a result of the construction of buildings on the site in the 19th and 20th centuries, before the construction of the existing North Tower. Therefore, the southwestern portion of Block 198, Lot 1 was determined to have low sensitivity for archaeological resources associated with the precontact occupation of Manhattan. The sensitive soil deposits would be expected to be located beneath the depth of disturbance associated with the excavation of basements in the 19th and 20th centuries, which is expected to have extended to a depth of 10 feet below the ground surface or to an approximate elevation of 4 to 5 feet relative to the North American Vertical Datum of 1988 (NAVD88). The upper levels of the peat deposits presumed to represent the upper surface of the floor of the Collect Pond and its associated marshes is expected to be situated at depths ranging between 20 to 40 feet below the ground surface, or an elevation of -6 to -26 feet relative to NAVD88.

Demapping Area: White Street

The Supplemental Phase 1A Study determined that undisturbed portions of the streetbed of White Street were determined to have low to moderate sensitivity for archaeological resources associated with the precontact occupation of Manhattan and moderate sensitivity for resources associated with the historic period. Undisturbed areas in the streetbed were defined as locations where no utilities are present or where there is a space of 5 feet or more between the outer edges of or below existing utilities.

Recommendations for Additional Analysis

The Supplemental Phase 1A Study recommended that additional archaeological analysis in the form of the review of new soil borings, which would be completed as part of the project planning and design phase, be completed in order to determine the extent of disturbance in the southwestern corner of 124 White Street and the White Street streetbed. If the new soil borings reveal that intact peat deposits are not present within the southwestern corner of the site, then that portion of the project site would be considered to have been disturbed as a result of the construction of the existing buildings and no further archaeological analysis would be recommended for 124 White Street as the site would be unlikely to have potential precontact sensitivity and historic fill deposits would be assumed to have been disturbed.

In the event that the final project plans result in disturbance to undisturbed portions of the White Street streetbed, then the additional archaeological analysis in the form of Phase 1B archaeological testing or monitoring as recommended by the Supplemental Phase 1A Study would be completed in consultation with LPC. Prior to the start of any additional analysis, a Phase 1B Work Plan would be prepared and submitted to LPC for review and approval. In the event that archaeological testing or monitoring confirms the presence of archaeological resources within the areas of archaeological sensitivity as identified in the Phase 1A study, then additional archaeological investigations (e.g., a Phase 2 Investigation or a Phase 3 Data Recovery as described above) would be conducted in consultation with LPC. The presence of any significant archaeological resources would be determined through additional archaeological investigations and consultation with LPC. With the completion of the additional archaeological investigations necessary within the areas of archaeological sensitivity and LPC concurrence with the conclusions of those investigations, the proposed project would not have the potential to result in significant adverse impacts on archaeological resources.

ARCHITECTURAL RESOURCES

In the With Action condition, the site of the existing MDC North and South Towers at 124 and 125 White Street would be redeveloped with a new, approximately 450-foot-tall detention facility. 125 White Street, also known as the MDC South Tower, composes a portion of the Manhattan Criminal Courts Building and Prison at 100 Centre Street,[1] that has previously been determined S/NR-eligible by the New York State Historic Preservation Office (SHPO) and NYCL-eligible by LPC. In a letter dated March 4, 2019, LPC also determined that 125 White Street was NYCL-eligible. The demolition of 125 White Street would constitute the potential for a significant direct adverse impact on the Criminal Courts Building and Prison, requiring that the Applicant develop, in consultation with LPC, appropriate measures to partially mitigate the potential adverse impact. These are discussed in more detail below.

In addition to the S/NR- and NYCL-eligible Criminal Courts Building and Prison, additional architectural resources have been identified in the study area. Construction-related activities in connection with the proposed project could result in physical, construction-related impacts to architectural resources located within 90 feet of the project site in the study area. Therefore, to avoid inadvertent construction-related impacts, construction protection measures would be set

[1] Collectively, the structures at 100 Centre Street and 125 White Street are referred to as the Criminal Courts Building and Prison in the November 17, 2009 SHPO Resource Evaluation determining that it meets S/NR eligibility criteria. The term "Criminal Courts Building and Prison" has been used in this section for consistency.

forth in a Construction Protection Plan (CPP) that would be developed in consultation with LPC and implemented in coordination with a licensed professional engineer. The CPP would describe the measures to be implemented to protect the Criminal Courts Building at 100 Centre Street and other affected architectural resources during construction of the proposed project. The CPP would follow the guidelines set forth in Section 522 of the *CEQR Technical Manual* and LPC's *New York City Landmarks Preservation Commission Guidelines for Construction Adjacent to a Historic Landmark* and *Protection Programs for Landmark Buildings*. The CPP would also comply with the procedures set forth in the New York City Department of Buildings (DOB)'s *Technical Policy and Procedure Notice (TPPN) #10/88.*

The proposed project would result in significant adverse indirect impacts on the Criminal Courts Building at 100 Centre Street due to the proposed demolition of the Prison building (MDC South Tower) at 125 White Street, which is a contributing element of the Criminal Courts Building and Prison architectural resource. As part of the mitigation measures that would be developed to partially mitigate the adverse impact, consultation would be undertaken with LPC regarding the design of the new detention facility and how it would connect via pedestrian bridges to the north façade of 100 Centre Street. No other potential for indirect impacts would occur to the architectural resources. No architectural resources have sunlight-dependent features that would be impacted by the proposed project, and the proposed project would not have the potential to significantly impact publicly accessible views to, or significantly alter, the historic setting of the other architectural resources located in the study area. Potential measures to mitigate the potential significant adverse impacts to historic and cultural resources are discussed in Section 4.15, "Mitigation-Manhattan."

B. METHODOLOGY

ARCHAEOLOGICAL RESOURCES

The archaeological resources study area includes those areas that would be disturbed by subsurface excavation. These areas include 124 White Street (Block 198, Lot 1), 125 White Street (Block 167, part of Lot 1), and the streetbed of White Street between Centre and Baxter Streets. Archaeological resources include material culture and other physical remnants of past human activities on a site. Precontact archaeological resources are those that date to the time before the region was colonized by European settlers, and which are associated with Native American populations that used or occupied a site. Archaeological resources can also include remains from activities that occurred during the historic period, which began with the European colonization of New York City in the 17th century. On sites where development (including the construction and demolition of buildings, landfilling, and other landscape modifications) occurred at some point during the past, archaeological resources may have been disturbed or destroyed by grading, excavation, infrastructure installation, and tidal action/erosion. However, some resources do survive in urban environments despite extensive development. Archaeological sites can be protected when covered with pavement. In both scenarios, archaeological deposits can be sealed beneath the ground surface, protected from further disturbance and archaeological investigations can be designed to further investigate those deposits.

As stipulated by the *CEQR Technical Manual*, for all projects subject to CEQR, consultation must be initiated with LPC to obtain a preliminary determination of the project site's potential archaeological significance and to determine if an archaeological investigation is required.

Archaeological investigations typically proceed in a multi-phase process consisting of Phase 1—determining the presence or absence of archaeological resources through documentary research and field testing; Phase 2—gathering sufficient information to assess S/NR eligibility; and Phase 3—mitigating unavoidable effects through data recovery or another form of mitigation. The need for advancing to an additional phase of work is dependent upon the results of the preceding phase. In urban contexts, the first phase of work is typically divided into two smaller phases, known as Phase 1A, which involves documentary research, and Phase 1B, which involves field-testing to confirm the results of the Phase 1A Study.

Pursuant to the *CEQR Technical Manual*, information regarding the proposed project was submitted to LPC to initiate their initial evaluation of the potential archaeological sensitivity of the Manhattan Site. In a comment letter dated August 8, 2018, LPC determined that the Manhattan Site is potentially archaeologically significant (see **Appendix D**). Specifically, LPC determined that the portions of Blocks 166 and 198 in which the project site is situated and the streetbed of White Street between Centre and Baxter Streets are potentially sensitive for archaeological resources associated with the 18th and 19th century occupation of the area outside of those portions of the project site that were disturbed as a result of the construction of buildings in the 20th century. Therefore, LPC requested that an archaeological documentary study be prepared to further clarify these initial findings.

Pursuant to LPC's request, a Phase 1A Study of the portions of the project site where subsurface disturbance is proposed was prepared by AKRF in October 2018 to determine the extent to which it may be archaeologically sensitive.[2] At the time of the preparation of the Phase 1A Study, the Manhattan Site included 125 White Street (Block 167, part of Lot 1) as well as 80 Centre Street (Block 166, Lot 27) and the streetbed of Hogan Place, which have since been removed from the proposed project. A Supplemental Phase 1A Study was prepared by AKRF in December 2018 that assessed the archaeological sensitivity of 124 White Street (Block 198, Lot 1) and the streetbed of White Street between Centre Street and Baxter Street. This chapter addresses only the sensitivity determinations made for 124 and 125 White Street and the streetbed of White Street as described in the Phase 1A Study and the Supplemental Phase 1A Study.

The Phase 1A Study and Supplemental Phase 1A Study had four major goals: (1) to determine the likelihood that the project site was occupied during the precontact and/or historic periods; (2) to determine the effect of subsequent development and landscape alteration on any potential archaeological resources that may have been located within the 80 Centre Street project site; (3) to make a determination of the potential for 80 Centre Street project site to possess archaeological sensitivity; and (4) to make recommendations for further archaeological analysis, if necessary. In a comment letter dated November 21, 2018 (see **Appendix D**), LPC concurred with the conclusions and recommendations of the Phase 1A Study. In a comment letter dated December 19, 2018 (see **Appendix D**), LPC also concurred with the conclusions and recommendations of the Supplemental Phase 1A Study. The conclusions of the Phase 1A Study and the Supplemental Phase 1A Study are summarized below.

[2] AKRF (2018): "New York City Borough-Based Jails Manhattan Site: 80 Centre Street, 125 White Street, and the Streetbed of Hogan Place between Centre and Baxter Streets; Block 166, Lot 27 and Block 167, Part of Lot 1; New York, New York: Phase 1A Archaeological Documentary Study." Prepared for: New York City Department of Correction; East Elmhurst, NY.

ARCHITECTURAL RESOURCES

ARCHITECTURAL RESOURCES STUDY AREA

Study areas for architectural resources are determined based on the area of potential effect for construction period impacts, as well as the larger area in which there may be visual or contextual impacts. The *CEQR Technical Manual* sets the guidelines for the study area as being typically within an approximately 400-foot radius of a project site. Therefore, a 400-foot study area has been delineated around the project site as depicted in **Figure 4.5-1** (photographs of individual resources are included as **Figures 4.5-2** through **4.5-10**).

Impacts on architectural resources can include both direct physical impacts and indirect impacts. Direct impacts include demolition or significant alteration of an architectural resource, damage from vibration (i.e., from construction blasting or pile driving) and additional damage from adjacent construction that could occur from falling objects, subsidence, collapse, or damage from construction machinery. Adjacent construction is defined as any construction activity that would occur within 90 feet of an architectural resource, as defined in the DOB *TPPN #10/88*.[3]

Indirect impacts on architectural resources are contextual or visual impacts that could result from project construction or operation. As described in the *CEQR Technical Manual*, indirect impacts could result from blocking significant public views of a resource; isolating a resource from its setting or relationship to the streetscape; altering the setting of a resource; introducing incompatible visual, audible, or atmospheric elements to a resource's setting; or introducing shadows over a historic landscape or an architectural resource with sun-sensitive features that contribute to that resource's significance (e.g., a church with stained-glass windows).

IDENTIFICATION OF ARCHITECTURAL RESOURCES

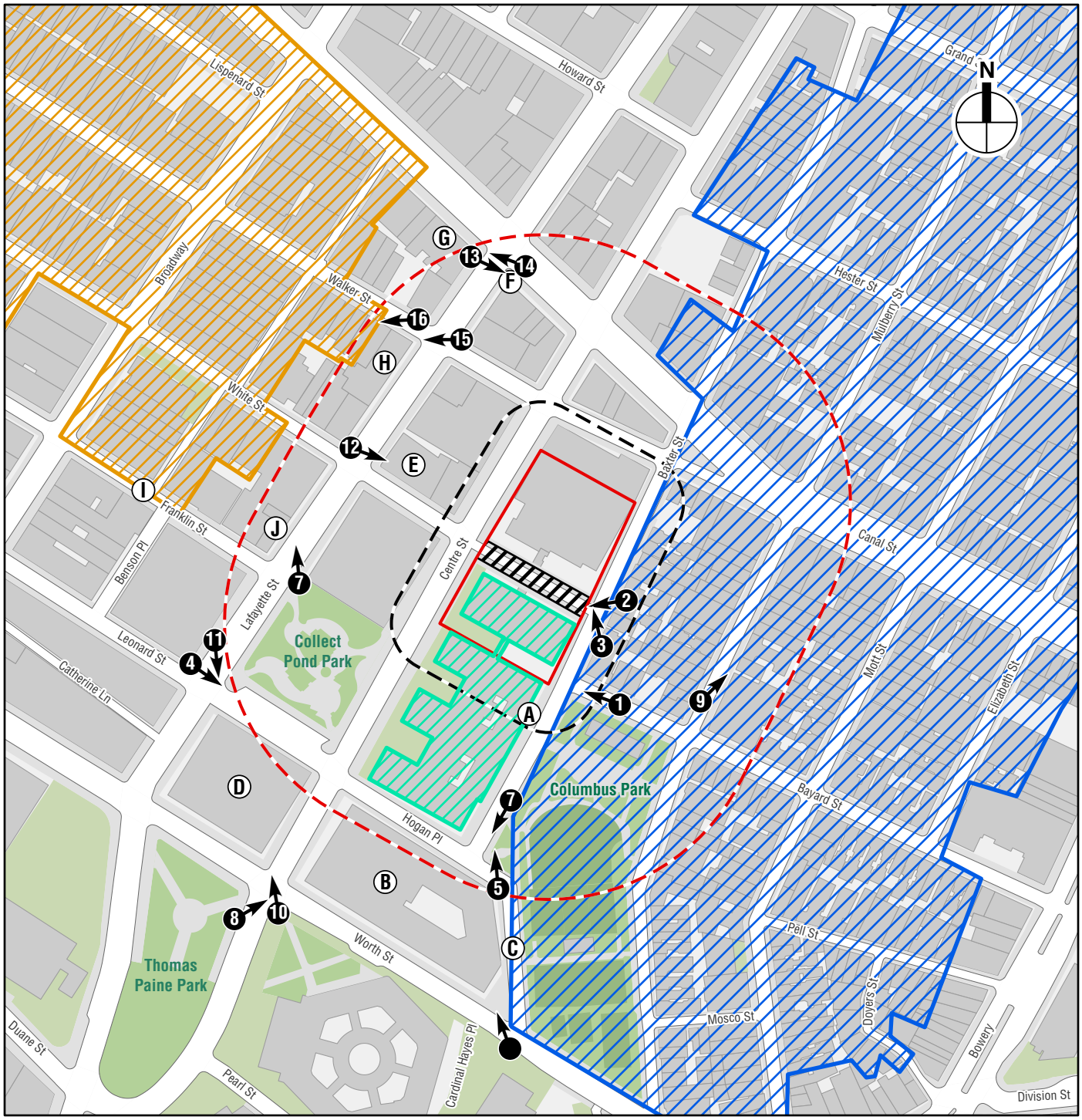
Once the study area was determined, an inventory of officially recognized architectural resources in the study area was compiled. Officially recognized historic resources ("known resources") include designated NYCLs; properties calendared for consideration as landmarks by LPC; properties listed on the S/NR or contained within a S/NR-listed district or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks; and properties not identified by one of the programs listed above, but which meet their eligibility requirements.

Criteria for inclusion on the National Register are listed in the Code of Federal Regulations, Title 36, Part 63. Districts, sites, buildings, structures, and objects are eligible for the National Register if they possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

A. Are associated with events that have made a significant contribution to the broad patterns of history; or

B. Are associated with the lives of significant persons in our past; or

[3] *TPPN #10/88* was issued by DOB on June 6, 1988, to supplement Building Code regulations with regard to historic structures. *TPPN #10/88* outlines procedures for the avoidance of damage to historic structures that are listed on the NR or NYCLs resulting from adjacent construction, defined as construction within a lateral distance of 90 feet from the historic resource.



Project Site

Study Area Boundary (400-foot perimeter)

Study Area Boundary (90-foot perimeter)

Proposed Demapped Area

1 Photograph View Direction and Reference Number

0 200 FEET

Known Architectural Resources

A Criminal Courts Building and Prison [NYCL-eligible, S/NR-eligible]

B Louis J. Lefkowitz State Office Building [NYCL-eligible, S/NR-eligible]

C Chinatown and Little Italy Historic District [S/NR-listed]

D City of New York Building [S/NR-eligible]

E Fire Engine Company No. 31 [NYCL, S/NR-listed]

F Historic Street Lampposts [NYCL]

G 254-260 Canal Street [NYCL, S/NR-listed]

H 94-100 Lafayette Street Building [NYCL, S/NR-eligible]

I Tribeca East Historic District [NYCHD, S/NR-eligible]

J Ahrens Building [NYCL, S/NR-eligible]

Architectural Resources Study Area
Manhattan Site - 124-125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.5-1

View northwest from Bayard Street of the South Tower of the Manhattan Detention Center (the Prison building of the Criminal Courts Building) at 125 White Street (Block 167, part of Lot 1) [NYCL-eligible, S/NR-eligible] **1**

View southwest from Baxter Street of the north façade of 125 White Street **2**

Project Site – South Tower of the Manhattan Detention Center
Manhattan Site – 124-125 White Street

View northwest from Baxter Street of the North Tower of the Manhattan Detention Center at 124 White Street (Block 198, Lot 1) **3**

Project Site – North Tower of the Manhattan Detention Center
Manhattan Site – 124-125 White Street

Figure 4.5-3

View east along Leonard Street of the Criminal Courts Building and Prison building (NYCL-eligible, S/NR-eligible) at 100 Centre Street (Block 167, Lot 1) **4**

View north along Baxter Street of the Criminal Courts Building and Prison building from Hogan Place **5**

Study Area – Known Architectural Resources
Manhattan Site – 124-125 White Street

View northwest of the Louis J. Lefkowitz State Office Building (NYCL-eligible, S/NR-eligible) at 80 Centre Street (Block 166, Lot 27) along Worth Street near Baxter Street **6**

View southwest of the north façade of the Louis J. Lefkowitz State Office Building along Baxter Street **7**

Study Area – Known Architectural Resources
Manhattan Site – 124-125 White Street

Figure 4.5-5

View northeast of the Louis J. Lefkowitz State Office Building from Centre Street south of Worth Street **8**

Buildings of the Chinatown and Little Italy Historic District (S/NR-listed) along Mulberry Street **9**

Study Area – Known Architectural Resources
Manhattan Site – 124-125 White Street

View northwest of the City of New York Building (S/NR-eligible) at 75 Centre Street (Block 168, Lot 32) from the southeast corner of Centre and Worth Streets **10**

View southeast of the City of New York Building from the intersection of Lafayette and Leonard Streets **11**

Study Area – Known Architectural Resources
Manhattan Site – 124-125 White Street

View east from White Street of the Fire Engine Company No. 3 building (NYCL, S/NR-listed) at 87 Lafayette Street (Block 197, Lot 1) **12**

View southeast of the Historic Street Lamppost (NYCL) on the southeast corner of Canal and Lafayette Streets **13**

Study Area – Known Architectural Resources
Manhattan Site – 124-125 White Street

View west of the building located at 254-260 Canal Street (Block 196, Lot 21) [NYCL, S/NR-listed] **14**

View southwest of the 94-100 Lafayette Street Building (NYCL, S/NR-eligible) at 91 Walker Street (Block 195, Lot 17) **15**

Study Area – Known Architectural Resources
Manhattan Site – 124-125 White Street

Figure 4.5-9

View of 87 Walker Street (Block 195, Lot 14) which is located in the Tribeca East Historic District (NYCHD, S/NR-eligible) **16**

The Ahrens Building (NYCL, S/NR-eligible) at 70-76 Lafayette Street (Block 172, Lot 23) **17**

Study Area – Known Architectural Resources
Manhattan Site – 124-125 White Street

C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded or may be likely to yield, information important in history or prehistory.

Properties that are less than 50 years of age are ordinarily not eligible, unless they have achieved exceptional significance. Determinations of eligibility are made by SHPO.

LPC designates historically significant properties or areas in New York City as NYCLs and/or New York City Historic Districts, following the criteria provided in the Local Laws of the City of New York, New York City Charter, Administrative Code, Title 25, Chapter 3. Buildings, properties, or objects are eligible for landmark status when they are at least 30 years old. Landmarks have a special character or special historical or aesthetic interest or value as part of the development, heritage, or cultural characteristics of the city, state, or nation. There are four types of landmarks: individual landmarks, interior landmarks, scenic landmarks, and historic districts.

Additionally, a survey was conducted to identify any previously undesignated properties that appear to meet S/NR or NYCL eligibility criteria ("potential architectural resources") in the study area.

Once the architectural resources on the project site and in the study area were identified, the proposed project was assessed for both direct physical impacts and indirect contextual impacts on architectural resources.

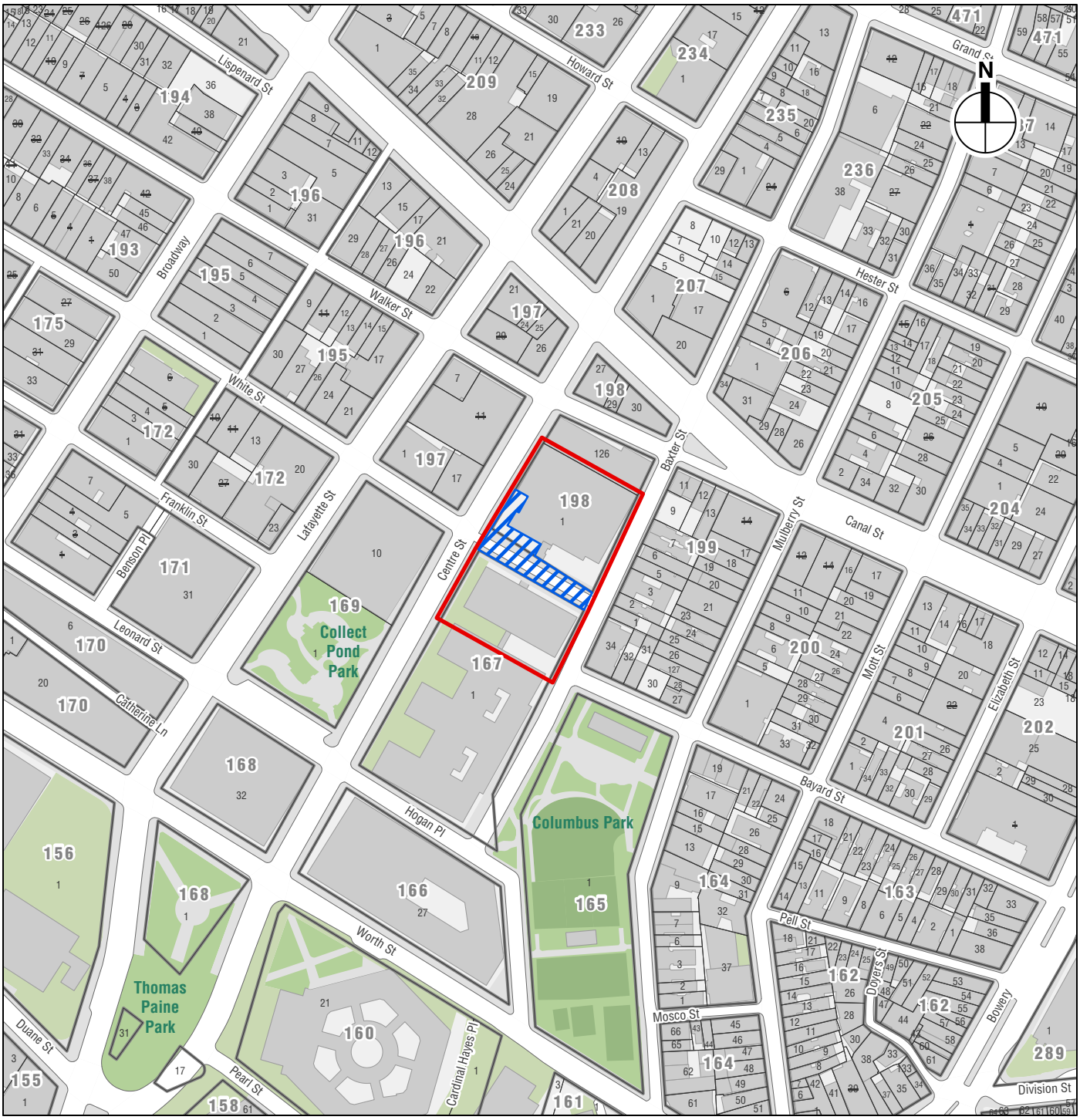
C. EXISTING CONDITIONS

ARCHAEOLOGICAL RESOURCES

As described previously, since LPC determined that the archaeological resources study area was potentially archaeologically significant, a Phase 1A Study and Supplemental Phase 1A Study were prepared (see **Appendix D**).The conclusions of the Phase 1A Study and Supplemental Phase 1A Study are summarized below and areas of potential archaeological sensitivity are depicted on **Figure 4.5-11**.

BACKGROUND AND DEVELOPMENT HISTORY

As described in the Phase 1A Study, the majority of the Manhattan Site was inundated by the waters of the Collect Pond and associated wetland areas through the late 18th century. Historical soil borings suggest that peat or bog deposits associated with these wetlands were present across the entire project site prior to the construction of the existing buildings. The Collect Pond was an important source of fresh water in the 17th and 18th centuries. By the late 18th century, however, the area had become increasingly industrial. The presence of tanneries, stockyards, and other industries resulted in the degradation of the water's quality and the pond was gradually filled in the late 18th and early 19th centuries. By the 1790s, a ropewalk—a long, linear building used for the manufacture of rope—was built along the eastern side of the site. As the pond was filled in, the land was developed for other uses and by the mid-19th century, White Street was built and Blocks 167 and 198 were fully developed with dozens of residential and/or commercial buildings. The project site was located in the infamous Five Points neighborhood, a notorious slum that was considered one of the worst neighborhoods of New York in the early to mid-19th century.



Manhattan Site
Area of Archaeological Sensitivity

The project site remained part of a densely developed and heavily populated area until the early 20th century. Between the 1910s and 1930s, much of the former Five Points area was demolished and redeveloped as part of an initiative to construct a civic center with government buildings such as courthouses, prisons, and municipal offices. Block 166 was initially selected as the site of a new state courthouse in the 1910s and the buildings on the block were razed. However, the courthouse was ultimately built farther to the south because of unstable soils on Block 166 (a result of filling in the Collect Pond). In 1927, the land was sold to New York State and construction began on the existing Louis J. Lefkowitz State Office Building, which was completed in 1930. The construction efforts required to complete the building's foundation and ensure the stability of the building were extensive and involved excavation to a depth of at least 12 feet followed by the driving of hundreds of piles, which were subsequently removed and replaced with new piles. The civic center area was expanded in 1938, when the construction of the existing jail and criminal court building began at 125 White Street on Block 167. The construction of that building complex faced similar engineering difficulties, and it was built with hundreds of cement-filled caissons beneath its basement and sub-basement. The building was completed in 1941. The support columns for the buildings on Block 167 were reportedly designed to extend through fill material and unstable soils associated with the pond and marshes. The MDC North Tower was constructed in 1989 and was designed to connect to the MDC South Tower via an elevated pedestrian bridge and a subsurface tunnel.

PRECONTACT ARCHAEOLOGICAL SENSITIVITY

The Phase 1A Study and Supplemental Phase 1A Study stated that Native American habitation sites in the region are most often located in coastal areas with access to marine resources, near fresh water sources and areas of high elevation and level slopes and are often in close proximity to previously identified archaeological sites. While the majority of the project site was formerly inundated by the waters of the Collect Pond, Native American activity is documented along the shores of the pond, and the Collect Pond itself is known to have been an important source of resources for the local indigenous population. Therefore, while the site was not likely used as a habitation site given the site's inundation, it would have served as an important resources to the local indigenous population.

Given the extent to which Blocks 167 and 198 have been disturbed by the construction of the existing buildings, it is unlikely that intact precontact deposits would be present in either area within the footprints of the extant buildings and these areas were therefore determined to have low sensitivity for archaeological resources dating to the precontact period. However, there is a slight chance that undisturbed deeply buried precontact resources could be present within the southwestern portion of Block 198, Lot 1, outside the footprint of the existing building and within the streetbed of White Street. Therefore, the southwestern portion of Block 198, Lot 1, and the streetbed of White Street were determined to have low sensitivity for archaeological resources associated with the precontact occupation of Manhattan. The sensitive soil deposits are expected to be located beneath the depth of disturbance associated with the excavation of basements in the 19th and 20th centuries, which is expected to have extended to a depth of 10 feet below the ground surface or to an approximate elevation of 4 to 5 feet relative to NAVD88. The upper levels of the peat deposits presumed to represent the upper surface of the floor of the Collect Pond and its associated marshes is expected to be situated at depths ranging between 20 to 40 feet below the ground surface, or an elevation of -6 to -26 feet relative to NAVD88.

HISTORIC PERIOD ARCHAEOLOGICAL SENSITIVITY

The extensive disturbance to the area resulting from the construction of the existing MDC North and South Towers likely disturbed nearly the entire historic ground surface. The existing buildings were constructed atop a number of support piles or caissons that would have resulted in additional disturbance to greater depths. The sites of 124 and 125 White Street were determined therefore to have no archaeological sensitivity for deposits associated with the historic period. However, the Supplemental Phase 1A Study concluded that intact historic period archaeological deposits could be present within undisturbed portions of the streetbed of White Street. Undisturbed portions of the streetbed were therefore determined to have moderate archaeological sensitivity for resources associated with the historic period.

ARCHITECTURAL RESOURCES

PROJECT SITE

The MDC South Tower (the Prison building), at 125 White Street, is located on the south side of White Street between Baxter and Centre Streets (see **Figures 4.5-1**, Resource A, and **Figure 4.5-2**). The 24-story tower is part of the Manhattan Criminal Courts Building and Prison, also known as 100 Centre Street, which has previously been determined S/NR-eligible by SHPO (see **Figure 4.5-4**). Built from 1938 to 1941, the building was designed by Harvey Wiley Corbett and Charles B. Meyers. The Criminal Courts Building and Prison is designed in an Art Moderne civic style, with minimal decoration and a streamlined form. The Prison building at 125 White Street is faced with granite and limestone, and is connected to the Criminal Courts Building at 100 Centre Street by a pedestrian bridge at the ninth floor level at the center of the building and second-story connectors on Centre and Baxter Streets. The building was renovated in 1986, although most of the renovations were to its interior. In a letter dated August 8, 2017, LPC also determined that the MDC South Tower at 125 White Street is S/NR-eligible (see **Appendix D**). Additionally, in a letter dated November 21, 2018, LPC determined that the Criminal Courts Building and Prison was NYCL-eligible (see **Appendix D**). Lastly, in a letter dated March 4, 2019, LPC determined that 125 White Street was NYCL-eligible (see **Appendix D**).

The MDC North Tower, at 124 White Street, is located on the north side of White Street across from the MDC South Tower (see **Figure 4.5-1**). Constructed in 1989, the 14-story tower was designed by Urbahn Associates, Inc. and Litchfield-Grosfeld Associates. The building is clad in reddish-pink concrete with narrow, horizontal windows and set on a two-story base that is faced in granite. A pedestrian bridge connects from the south façade of the MDC North Tower to the north façade of the MDC South Tower at 125 White Street at the second-floor level (see **Figure 4.5-3**). Since the building was constructed in 1989, the building does not meet the minimum S/NR 50-year age criterion. While the MDC North Tower meets the 30-year age criterion for New York City Landmark designation, LPC determined in a letter dated August 8, 2017 that the MDC North Tower had no architectural significance (see **Appendix D**). Therefore, only one known architectural resource is located on the project site, the MDC South Tower at 125 White Street.

STUDY AREA

There are 10 known architectural resources located within the 400-foot study area around the project site. These architectural resources are described below, listed in **Table 4.5.1**, and mapped on **Figure 4.5-1**.

Table 4.5-1
Architectural Resources on the Project Site and in the Study Area

Ref. No.[1]	Name	Address	S/NR	S/NR-Eligible	NYCL/ NYCHD	NYCL-Eligible
Project Site						
Project Site	Prison of the Criminal Courts and Prison Building	125 White Street		X		X
Study Area						
A	Criminal Courts Building (and Prison)	100 Centre Street and 125 White Street		X		X
B	Louis J. Lefkowitz State Office Building	80 Centre Street		X		X
C	Chinatown and Little Italy Historic District	See **Figure 4.5-1** for district boundaries	X			
D	City of New York Building	125 Worth Street		X		
E	Fire Engine Company No. 31	87 Lafayette Street	X		X	
F	Historic Street Lampposts	See **Figure 4.5-1** for lamppost location			X	
G	254-260 Canal Street	254 to 260 Canal Street	X		X	
H	94-100 Lafayette Street Building	94 to 100 Lafayette Street		X	X	
I	Tribeca East Historic District	See **Figure 4.5-1** for district boundaries		X	X	
J	Ahrens Building	70 to 76 Lafayette Street		X	X	

Notes:

[1] Corresponds to **Figure 4.5-1**.

SR: New York State Register of Historic Places.
NR: National Register of Historic Places.
S/NR Eligible: Site has been found eligible for listing on the New York State and National Registers of Historic Places.
NYCL: New York City Landmark.
NYCL Eligible: LPC has determined that the site appears eligible for NYCL designation.
NYCHD: New York City Historic District

Known Architectural Resources

Criminal Courts Building (and Prison)[4]

The Criminal Courts Building (S/NR-eligible, NYCL-eligible) at 100 Centre Street is bounded by the Prison building to the north, Baxter Street to the east, Hogan Place to the south, and Centre Street to the west, and includes the Prison on the project site at 125 White Street. The 24-story Criminal Courts Building is designed in the Art Moderne civic style with polished granite at the base and limestone cladding at the upper stories (see **Figure 4.5-1**, Resource A, and **Figure 4.5-4**). The building is organized with three projecting blocks along Centre Street that form U-shaped courts, with a jail block to the north (the Prison on the project site at 125 White Street). Vertically oriented window bays with paired windows and molded aluminum spandrels define the façades above the base. A stepped back tower is centrally located on the building. The Prison on the project site at 125 White Street is connected to the Criminal Courts Building by a pedestrian bridge at the ninth floor level at the center of the building and second story connectors on Centre and Baxter Streets.

Louis J. Lefkowitz State Office Building

The Louis J. Lefkowitz State Office Building (S/NR-eligible, NYCL-eligible), also known as 80 Centre Street, is bounded by Hogan Place to the north, Baxter Street to the east, Worth Street to the south, and Centre Street to the west, and is approximately 382 feet from the project site. The nine-story office building was designed by architect William Haugaard and constructed ca. 1928–1930. The Neo-classical style building with Art Deco detailing is faced with Maine Coast granite and is symmetrically fenestrated (see **Figure 4.5-1**, Resource B, and **Figure 4.5-5** and Photo 8 of **Figure 4.5-6**). The exterior decoration of the building through to the seventh floor is intact, and includes an ornate cornice at the seventh story, fluted pilasters that separate the window bays above the second story, and a decorative Art Deco frieze between the second and third floors. The two upper floors are set back from the base and are unornamented. The lobby of the building has an elaborate Art Deco Egyptian design.

Chinatown and Little Italy Historic District[5]

The Chinatown and Little Italy Historic District (S/NR-listed) is roughly bounded by Baxter, Centre, and Lafayette Streets and Cleveland Place to the west; Jersey Street and East Houston to the north; Elizabeth Street to the east; and Worth Street to the south. The portion of the historic district that falls within the 400-foot study area includes the northern portion of Columbus Park and buildings located along Baxter and Mulberry Streets just north of Canal Street and north of Mosco Street (see **Figure 4.5-1**, Resource C, and Photo 9 of **Figure 4.5-6**). Columbus Park is located approximately 40 feet from the project site. The buildings at 104-108 Bayard Street, 218-220 Canal Street, and 79-93 Baxter Street, which are located within the historic district, are less than 90 feet away from the project site.

Columbus Park, originally known as Mulberry Bend Park, was established in 1897 on 3.3 acres of land as a result of the Slum Clearance and Small Parks Act of 1887. In 1895, the buildings on

[4] Information about this resource has been summarized from the following source: Howe, Kathy. *Resource Evaluation: Criminal Courts Building and Prison*. Prepared for the National Register of Historic Places, National Park Service. November 2009.

[5] Information about this resource has been summarized from the following resource: Howe, Kathy. *National Register of Historic Places Registration Form: Chinatown and Little Italy Historic District.* Prepared for the National Register of Historic Places, National Park Service. September 2009.

the blocks were cleared, displacing over 2,600 people. The original plan for the park was modeled on Parisian parks, and was designed by Calvert Vaux.

The Chinatown and Little Italy Historic District includes buildings of a variety of architectural styles spanning from the 19th century through 1965. The buildings are clad primarily in brick; are three- to seven-stories in height; and are typically four bays wide. The buildings in the area include Federal style townhouses, tenements, commercial buildings, Romanesque Revival churches, and civic buildings.

City of New York Building[6]

The City of New York Building (S/NR-eligible) at 125 Worth Street is bounded by Leonard Street to the north, Centre Street to the east, Worth Street to the south, and Lafayette Street to the west. Located approximately 380 feet from the project site, the City of New York Building was built ca. 1933–1935. Designed by Charles B. Meyers, the U-shaped, 10-story masonry building is designed in the Neo-Classical style with Art Deco detailing (see **Figure 4.5-1**, Resource D, and **Figure 4.5-7**). The building is organized with a two-story base that is separated from the upper stories by a frieze with a wave motif. The interior window bays of the third through seventh stories are recessed and organized with paired windows; beneath the windows, the spandrels include octagonal shaped medallions. The medallions between the third and fourth floors are of copper and were designed by Oscar Bach, who also produced custom metalwork for the Chrysler and Empire State Buildings. A decorative stone frieze and cornice carries across the building above the seventh story, with the upper two stories setting back from the façades. Other notable architectural details include original Art Deco copper lighting fixtures along Centre Street, a pair of columns topped by copper eagles at the Worth Street entrance, and the elaborate bronze grillwork at both of these entrances.

Fire Engine Company No. 31

Built in 1895, the Fire Engine Company No. 31 building (NYCL, S/NR-listed) was designed by the architectural firm Napoleon LeBrun & Sons (see **Figure 4.5-1**, Resource E, and Photo 12 of **Figure 4.5-8**). Located on the northeast corner of Lafayette and White Streets at 87 Lafayette Street, the building is approximately 170 feet from the project site. The three-and a-half story building was built in the French Renaissance style, with a steep, hipped slate roof with iron crestings and embellished dormer windows, and a faceted tower on the southwest corner of the building. The building is clad with brick and stone detailing.

Historic Street Lamppost[7]

Erected between 1895 and 1905, the Historic Street Lamppost (NYCL) is located on the southeast corner of Canal and Lafayette Streets (see **Figure 4.5-1**, Resource F, and Photo 13 of **Figure 4.5-8)**. The cast iron, Bishop's Crook style lamppost is located approximately 342 feet from the project site. The street lamppost is one of approximately 100 historic, cast-iron lampposts located throughout the Bronx, Brooklyn, Manhattan, and Queens. The lamppost has a decorative garland design on the shaft and a ladder rest, and is fabricated of a single casting up to the crook top.

[7] Information about this resource has been summarized from the following resource: Woodoff, Jeremy. *Historic Street Lampposts.* Prepared for the Landmarks Preservation Commission. June 1997.

254-260 Canal Street[8]

Located on the southwest corner of Canal and Lafayette Streets, 254-260 Canal Street (NYCL, S/NR-listed) is approximately 350 feet from the project site (see **Figure 4.5-1**, Resource G, and Photo 14 of **Figure 4.5-9**). Built ca. 1856-1857, the building was designed by James Bogardus in the Renaissance Revival-North Italian Mode style. The five-story building is one of the earliest surviving cast-iron-fronted buildings in New York City. The façade is constructed of glass and cast iron and is broken into 16 bays along Canal Street and 12 bays along Lafayette Street. Multiple, evenly spaced columns, infilled in between by historic storefront windows with wooden framing, support the ground floor. The upper floor windows are also framed by columns, which support entablatures overhead. From the third to fifth stories, the windows have arched enframements, which are highlighted by pilasters and bracketed keystones above. A full entablature separates the third story from the fourth story, where the arch motif is repeated but with Medusa-head keystones in place of brackets. A cornice with dentils and consoles crowns the building.

94-100 Lafayette Street Building[9]

Located on the southwest corner of Walker and Lafayette Street, the 94-100 Lafayette Street Building (NYCL, S/NR-eligible) is located approximately 350 feet from the project site. Now called the Avildsen Building, the building was designed in the commercial style building with neo-Classical details designed by the architecture firm of Howells and Stokes (see **Figure 4.5-1**, Resource H, and Photo 15 of **Figure 4.5-9**). The six-story building at 94-98 Lafayette Street was constructed ca. 1907-1908. The building was constructed with a T-shaped plan with two discontinuous façades. Between 1909 and 1910, the eight-story 100 Lafayette Street building was constructed, matching the neo-Classical style detailing of its neighboring building. Commissioned by Helen Hartley Jenkins, the buildings were used for approximately next 40 years for storage and sales by the Russell and Erwin Manufacturing Company and the Stanley Works. Then in 1952, Avildsen Tools & Machines, Inc. purchased the properties and joined the two buildings. Today, the building is used as commercial and office space.

The building is faced in tan brick with limestone and terra cotta details, with minimal but well-designed neo-Classical details. The original metal frames and spandrels, which include a wreathe design, of the windows are intact as are most of the metal framed, ground-floor shops. The façade is separated into two bays along Walker Street, while the façade along Lafayette Street is separated into eight bays. Above the shops, in the curve of the arches are criss-cross rounded windows that highlight the top of the shops; these are topped with three bracketed keystones along Lafayette Street and a singular keystone above the two arches along Walker Street. These arched window enframements are repeated on the fifth-story and on the eighth-story of the 100 Lafayette Building. The six- and eight-story buildings are topped with a simplified cornice.

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[8] Information about this resource has been summarized from the following resource: Howe, Kathy. *National Register of Historic Places Registration Form: 254-260 Canal Street.* Prepared for the National Register of Historic Places, National Park Service. April 2006.

[9] Information about this resource has been summarized from the following resource: Hill, Isabelle. *94-100 Lafayette Street Building (now called the Avildsen Building)*. Prepared for the Landmarks Preservation Commission. December 2001.

Tribeca East Historic District[10]

The Tribeca East Historic District (NYCHD, S/NR-eligible) contains ornate cast-iron and masonry store and loft buildings that reflect the district's original role as the City's center for dry goods and related industries, such as office buildings and banks. Roughly bounded by Canal Street to the north, Lafayette Street to the east; Worth, Franklin, and White Streets to the south; and Church Street and West Broadway to the west, the east end of the Tribeca East Historic District is located approximately 385 feet from the project site (see **Figure 4.5-1**, Resource I). One building within the historic district falls within the study area, 87 Walker Street (see Photo 16 of **Figure 4.5-10**). The six-story building was designed by architect Edward Wall (ca. 1868-1869) for the prominent banker and developer Samuel D. Babcock as a store and loft building. Designed in the Italianate and Second Empire styles, the building's exterior is clad in cast-iron with arcades at each story separated by prominent sill courses. Molded round arches, carried on engaged columns, have keystones and decorative spandrels. An elaborate sheet-metal cornice crowns the fifth story with a mansard roof above that has two rounded-arch metal dormer windows. The first story retains its original cast-iron, storefront-framing members, although most of the ornamental details are missing.

Ahrens Building[11]

Located on the northwest corner of Lafayette and Franklin Streets at 70-76 Lafayette Street, the Ahrens Building (NYCL, S/NR-eligible) is approximately 335 feet from the project site. Designed by architect George H. Griebel and constructed from 1894 to 1895, the Ahrens Building was constructed in the Romanesque Revival style (see **Figure 4.5-1**, Resource J, and Photo 17 of **Figure 4.5-10**). The seven-story building was commissioned by liquor merchant Herman F. Ahrens, and owned by the Ahrens family until the 1960s.

The Romanesque Revival style building was constructed of steel and cast iron framing with an elevator. The ground floor appears to be supported by rusticated stone piers with historic storefront infill in between. The building's façade is clad in sandstone and buff brick, but is highlighted with brown terra cotta and rock-faced brick detailing. The main entrance to the building is located along Lafayette Street underneath a decoratively carved arched portal. Starting on the second floor, the windows are organized into pairs; some with inset stone lintels and others with curved bullnose brick reveals. On the Lafayette Street facade is a three-bay arcade that contains three-sided metal windows at the second through the fourth stories, set below arched windows with arched mullions at the fifth story. The arched windows at the fifth story are unified on both facades by a terra-cotta sill course and trim. The paired and tripled arched windows on the seventh floor are also outlined with terra-cotta moldings. The building is topped by a decorative metal cornice.

[10] Information about this resource has been summarized from the following resource: Breiner, David M. and Margaret M.M. Pickart. *Tribeca East Historic District Designation Report*. Prepared for the Landmarks Preservation Commission. December 1992.

[11] Information about this resource has been summarized from the following resource: Urbanelli, Elisa. *Ahrens Building*. Prepared for the Landmarks Preservation Commission. January 1992.

D. THE FUTURE WITHOUT THE PROPOSED PROJECT

ARCHAEOLOGICAL RESOURCES

In the No Action condition, it is assumed that the proposed project would not be implemented and that the project site would remain in its current condition. Therefore, no archaeological resources will be disturbed in the future without the proposed project if such resources are present on the project site.

ARCHITECTURAL RESOURCES

In the No Action condition, the status of architectural resources could potentially change. S/NR-eligible resources could become listed on the Registers. It is also possible that, given the project's 2027 analysis year, additional sites could be identified as architectural resources and/or potential architectural resources.

In the No Action condition, changes to architectural resources or to their settings could occur. For instance, indirect impacts from future projects could include blocking public views of a resource, isolating a resource from its setting or relationship to the streetscape, altering the setting of a resource, introducing incompatible visual, audible, or atmospheric elements to a resource's settings or introducing shadows over an architectural resource with sun-sensitive features. It is also possible that some architectural resources in the project area could deteriorate or experience direct impacts through alteration or demolition, while others could be restored.

Architectural resources that are listed on the S/NR or that have been found eligible for listing are given a measure of protection under Section 106 of the National Historic Preservation Act from the effects of projects sponsored, assisted, or approved by federal agencies. Although preservation is not mandated, federal agencies must attempt to avoid adverse effects on such resources through a notice, review, and consultation process. Properties listed on the Registers are similarly protected against effects resulting from projects sponsored, assisted, or approved by State agencies under the State Historic Preservation Act. However, private owners of properties eligible for, or even listed on, the Registers using private funds can alter or demolish their properties without such a review process. Privately owned properties that are NYCLs, in New York City Historic Districts, or pending designation as Landmarks are protected under the New York City Landmarks Law, which requires LPC review and approval before any alteration or demolition can occur, regardless of whether the project is publicly or privately funded. Publicly owned resources are also subject to review by LPC before the start of a project; however, LPC's role in projects sponsored by other City or State agencies generally is advisory only.

The NYC Building Code, in Section BC 3309: Protection of Adjoining Property, provides some measures of protection for all properties against accidental damage from adjacent construction by requiring that all buildings, lots, and service facilities adjacent to foundation and earthwork areas be protected and supported. While these regulations serve to protect all structures adjacent to construction areas, they do not afford special consideration for historic structures.

The second protective measure applies to NYCLs, properties within New York City Historic Districts, and NR-listed properties. For these structures, *TPPN #10/88* applies. *TPPN #10/88* supplements the standard building protections afforded by Building Code C26-112.4 by requiring a monitoring program to reduce the likelihood of construction damage to adjacent NYCLs and NR-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed.

PROJECT SITE

In the No Action condition, it is assumed that the MDC North and South Towers (Prison building) at 124 and 125 White Street will remain in their current condition.

STUDY AREA

As discussed in Section 4.1, "Land Use, Zoning, and Public Policy-Manhattan," two development projects located within the 400-foot study area are anticipated to be completed by 2027. The first project includes a 61-room hotel development at 88 Walker Street (Block 196, Lot 24) with community facility space. The second development will be a an approximately 25,000 sf office space at 213 Canal Street (Block 206, Lot 1).

E. THE FUTURE WITH THE PROPOSED PROJECT

ARCHAEOLOGICAL RESOURCES

SOUTHERN PORTION OF THE PROJECT SITE—BLOCK 166, LOT 1

As described above, the southern portion of the project site, Block 166, Lot 1, was identified as having no or low sensitivity for archaeological resources dating to the precontact or historic periods; therefore, the project will not have the potential to result in significant adverse impacts on archaeological resources in this portion of the project site.

Potential areas of archaeological sensitivity were identified in both the Proposed Demapping Area within White Street and in the southwestern corner of the northern portion of the project site on Block 198, Lot 1. The studies recommended additional archaeological analyses to confirm the presence or absence of archaeological resources within those areas and to determine the need for additional archaeological investigations.

NORTHERN PORTION OF THE PROJECT SITE: BLOCK 198, LOT 1

As described above, the majority of Block 198, Lot 1 was identified as having no or low sensitivity for archaeological resources dating to the precontact or historic periods. However, deeply buried precontact archaeological resources and historical fill may be present within the southwestern corner of the site, outside the footprint of the existing 124 White Street building. The Supplemental Phase 1A Study determined that the extent to which the southwestern corner of Block 198 was disturbed as a result of the construction of the existing 124 White Street building and the adjacent subway tunnel could not be determined. The study therefore recommended that additional archaeological analysis in the form of the review of new soil borings, which would presumably be completed as part of the project planning and design phase, be completed in order to determine the extent of disturbance in the southwest corner of Block 198. Historical soil borings suggest the presence of potentially intact peat deposits in this portion of the project site and modern soil borings taken in the adjacent sidewalk suggest that such deposits may still be present in the sidewalk adjacent to 124 White Street, though the extent of disturbance in the southwestern corner of Block 198, Lot 1 is unknown. If the new soil borings reveal that intact peat deposits are not present within the southwest corner of the site in the area as indicated on **Figure 4.5-11**, then that portion of the project site would be considered to have been disturbed as a result of the construction of the existing buildings. No further archaeological

analysis would be recommended as the site would be unlikely to have potential precontact sensitivity and historic fill deposits would be assumed to have been disturbed.

In the event that additional potentially intact peat deposits are identified, then additional archaeological analysis would be warranted in consultation with LPC. Given the potential depth of the deposits, it is possible that an alternative to traditional archaeological testing such as a geoarchaeological study of soil boring cores would be required to further examine these deposits. Prior to the start of any additional analysis, a Work Plan would be prepared and submitted to LPC for review and approval. In the event that the additional analysis confirms the presence of archaeological resources within the areas of archaeological sensitivity as identified in the Supplemental Phase 1A Study, then additional archaeological investigations would be conducted in consultation with LPC. With the completion of the additional archaeological investigations necessary within the areas of archaeological sensitivity and LPC concurrence with the conclusions of those investigations, the proposed actions would not result in significant adverse impacts on archaeological resources.

PROPOSED DEMAPPING AREA

Within the Proposed Demapping Area, undisturbed portions of the streetbed of White Street have low archaeological sensitivity for deeply buried precontact archaeological resources and moderate sensitivity for historic period archaeological resources (see **Figure 4.5-11**). As currently proposed, the project would not result in subsurface disturbance within White Street, below-ground volumes of which would only be de-mapped. Therefore, the proposed project would not have the potential to result in a significant adverse impact on archaeological resources and no additional archaeological analysis will be required.

In the event that project plans are revised in the future and disturbance would occur in the archaeologically undisturbed portions of the streetbed, then additional archaeological analysis in the form of Phase 1B archaeological testing or monitoring would be required. All testing or monitoring would be completed in consultation with LPC. Prior to the start of any additional analysis, a Phase 1B Work Plan would be prepared and submitted to LPC for review and approval. In the event that archaeological testing or monitoring confirms the presence of archaeological resources within the areas of archaeological sensitivity as identified in the Phase 1A Study, then additional archaeological investigations (e.g., a Phase 2 Investigation or a Phase 3 Data Recovery as described above) would be conducted in consultation with LPC. The presence of any significant archaeological resources would be determined through additional archaeological investigations and consultation with LPC. With the completion of the additional archaeological investigations necessary within the areas of archaeological sensitivity and LPC concurrence with the conclusions of those investigations, the proposed project would not have the potential to result in significant adverse impacts on archaeological resources.

ARCHITECTURAL RESOURCES

PROJECT SITE

In the With Action condition, the existing MDC North and South Towers (Prison building) at 124 and 125 White Street would be demolished and the project site redeveloped with a new, approximately 450-foot-tall (not including mechanical bulkhead) detention facility containing approximately 1,270,000 gsf of above-grade floor area, including support space; and community facility and/or retail space. This site would also provide approximately 125 accessory parking

spaces. The proposed project would also involve the demapping of above- and below-grade volumes of White Street between Centre Street and Baxter Street. An arcade would be created along the White Street streetbed, with the proposed detention facility spanning over the streetbed commencing at the third-floor level. Additionally, two new one-story pedestrian bridges at approximately the third story and at a higher floor would be constructed to connect the proposed detention facility to existing court facilities to the south at the Criminal Courts Building (100 Centre Street).

Demolition of the Prison building at 125 White Street on the project site, a contributing element to the S/NR- and NYCL-eligible Criminal Courts Building and Prison architectural resource, would result in a significant impact and require that the Applicant consult with LPC to develop and implement appropriate mitigation measures to partially mitigate the potential significant adverse impact. Mitigation measures would include consulting with LPC regarding the design of the new building and how it would connect via pedestrian bridges to the north façade of 100 Centre Street.

Mitigation measures are also anticipated to include HABS documentation of the Prison building at 125 White Street including sufficient information about 100 Centre Street, to which it is connected. The HABS would include a historical narrative, architectural description, any historic photographs or drawings of the building as available, and archival black and white format photographs. The HABS report would be provided to LPC and to an appropriate local repository. Potential measures to mitigate the potential for significant adverse impacts to historic and cultural resources are discussed in Section 4.15, "Mitigation-Manhattan."

STUDY AREA

Potential Direct Impacts

A number of the architectural resources are located within 90 feet or are directly adjacent to the project site. In addition, the S/NR- and NYCL-eligible Criminal Courts Building would be directly affected through the removal of the existing connectors and pedestrian bridge that link it to the Prison building at 125 White Street, as well as by the construction of new pedestrian bridges to connect the new detention facility and the Criminal Courts Building. Therefore, specific construction protection measures would be developed and implemented to avoid physical damage to the north façade of the Criminal Courts Building as a result of the removal and addition of pedestrian bridges. To avoid the potential for inadvertent construction-related impacts to the Criminal Courts Building which is also adjacent to the project site and 12 other historic buildings that are located within 90 feet of the project site, construction protection measures would be set forth in a CPP that would be developed in consultation with LPC and implemented in coordination with a licensed professional engineer (see **Figure 4.5-1**). The 12 other buildings are located at 104-108 Bayard Street (three buildings), 218-220 Canal Street (two buildings), and 79-93 Baxter Street (seven buildings). The CPP would describe the measures to be implemented to protect the 13 historic buildings (including the Criminal Courts Building) during demolition and construction activities associated with the project. The CPP would follow the guidance set forth in Section 522 of the *CEQR Technical Manual*, and LPC's *New York City Landmarks Preservation Commission Guidelines for Construction Adjacent to a Historic Landmark* and *Protection Programs for Landmark Buildings*. The CPP would also comply with the procedures set forth in DOB's *TPPN #10/88*. The CPP would include provisions for preconstruction inspections, monitoring the building for cracks and movement,

installation of physical protection as appropriate, and provisions for stopping work if monitoring thresholds are exceeded or damage occurs.

Potential Indirect Impacts (Visual and Contextual Impacts)

According to the *CEQR Technical Manual*, visual and contextual impacts on historic resources can include isolation of a property from or alteration of its setting or visual relationship with the streetscape; introduction of incompatible visual, audible, or atmospheric elements to a resource's setting; elimination or screening of publicly accessible views of a resource; or introduction of significant new shadows, or significant lengthening of the duration of existing shadows, over a historic landscape or on a historic structure (if the features that make the resource significant depend on sunlight) to the extent that the architectural details that distinguish that resource as significant are obscured.

The proposed project would have no potential for significant adverse indirect impacts on the architectural resources in the area with the exception of the Criminal Courts Building at 100 Centre Street, which would have its setting and context altered through the demolition of the Prison building on the project site, a contributing element to the S/NR- and NYCL-eligible resource. Potential measures to mitigate the significant adverse impacts to historic and cultural resources are discussed in Section 4.15, "Mitigation-Manhattan."

The Louis J. Lefkowitz State Building, which has frontages along Hogan Place and Worth, Centre, and Baxter Streets, is located south of the project site. The 50-foot-wide Hogan Place and the Criminal Courts Building separates the building from the project site. With the development of the proposed project, the nine-story courthouse, a large, approximately 640,000-square-foot building, would remain visually prominent along Hogan Place and Worth, Centre, and Baxter Streets. Separated by Baxter Street, an approximately 50-foot-wide city street, and located north of Worth Street, are the Chinatown and Little Italy Historic District's three- to seven-story buildings and Columbus Park. The park and buildings located along Baxter between Canal and Bayard Streets have sat adjacent to the Prison building of the project site since the late 1930s. Since then, the portion of the study area to the west of Baxter Street and south of Worth Street has continued to develop with more large-scale developments including the 25-story Chatham Towers built in 1964, the MDC North Tower (part of project site) built in 1989, and the 27-story U.S. District Court-Southern District of New York building built in 1992. The City of New York Building located southwest of the project site and to the west of the Louis J. Lefkowitz State Building, has frontages along Lafayette, Leonard, Centre, and Worth Streets. The 75-foot-wide Centre Street and the Criminal Courts Building separates the building from the project site. Located on its own block, the 10-story building would remain visually prominent, and would not be isolated from its setting or visual relationship with the streetscape.

Toward the northern edge of the study area, on the southeastern and southwestern corners of Canal and Lafayette Streets, are a historic lamppost and 254-260 Canal Street. Walker, Lafayette and Centre Streets, as well as a number of buildings separate the lamppost and 254-260 Canal Street from the project site. Therefore, the visual prominence of these architectural resources would remain unchanged, and the resources would not be isolated from their setting or visual relationship with the streetscape.

On the northeast corner of Lafayette and White Streets the Fire Engine Company No. 31 building is separated from the project site by an eight-story building that fronts on White and Centre Streets and Centre Street, a 75-foot-wide city street. Across the street, on the corner of Walker and Lafayette Streets is the 94-100 Lafayette Street Building. Centre and Lafayette

Streets, which are 75 and 80 feet wide as well as a city block, separate the building from project site. Additionally, views of the project site would be partially interrupted by the 9-story mixed-use building that has frontages on Lafayette, Walker, and Centre Streets. The Tribeca East Historic District is located west of 94-100 Lafayette Street. The historic district, including the six-story building at 87 Walker Street, are separated from the project site by Lafayette and Centre Streets, as well as the developments on blocks between the two streets. Therefore, views to or within the historic district would not be adversely impacted by the proposed project. Further south, along Lafayette Street, the Ahrens Building is a seven-story building that has frontages on Lafayette and Franklin Streets, facing the 12-story New York City Civil Court building and the 12-story New York County Family Court building at 60 Lafayette Street. These buildings would physically separate and help to interrupt views of the proposed detention facility from the Ahrens Building. These architectural resources would remain prominent along their respective streets, and would not be isolated from their setting or visual relationship with the streetscape with the development of the proposed project.

The proposed project would construct a new detention facility at 124 and 125 White Street. The new detention facility would be taller than the existing MDC North and South Towers on the project site. The proposed detention facility's footprint would be large and comparable in size to those in the immediately surrounding area, including those buildings along Centre Street, as well as buildings along Worth Street including the New York City Civil Court building at 111 Centre Street and the Louis J. Lefkowitz State Office Building at 80 Centre Street. The conceptual design for the proposed detention facility at the project site would have a minimal set back above the sixth story base (see Figure 4.6-29 of Section 4.6, "Urban Design and Visual Resources-Manhattan"). The proposed detention facility is expected to be similar in massing to 100 Centre Street with a spine and projecting wings with mechanical floors above. Conceptual designs for the proposed detention facility suggest that the new building could be clad in modern materials, such as a glass curtain wall and terra cotta panels.[12] The potential use of a glass curtain wall and terra-cotta panel cladding of the proposed tower would vary from the cladding of most of the buildings in the study area, which typically include stone or concrete façades with punched or vertically oriented windows. However, there are buildings within and directly outside of the study area with glass and metal curtain walls, such as the New York City Civil Court building at 111 Centre Street, located across Centre Street from the project site; the Jacob K. Javits Federal Building at 1 Federal Plaza; and 9 Crosby Street. Additionally, the proposed detention facility's scale and massing would be similar to buildings south of Worth Street, just outside the study area, such as the 41-story Jacob K. Javits Federal Building. Therefore, the proposed project would not introduce an incompatible visual, audible, or atmospheric element to the settings of the known architectural resources in the study area, with the exception of the Criminal Courts Building as discussed above.

The proposed project would not have the potential to eliminate or screen any significant publicly accessible views of the architectural resources. Construction of the new detention facility and the new pedestrian bridges would affect views of the secondary north façade of the Criminal Courts Building. However, views to this façade are already largely obstructed by the existing Prison building on the project site. The pedestrian bridges would be expected to alter the view of this façade, but not obstruct it from view. The entirety of this architectural resource's principle

[12] Materials are subject to change, but a goal of the Borough Based Jail System program is for the new facilities to be compatible with the surrounding area.

facades would remain visible to the east, and west along Centre and Baxter Streets. Views to the main entrances along Centre Street and the façades along Centre and Baxter Street would not be altered. As described above, consultation would be undertaken with LPC regarding the design of the new building and the pedestrian bridges that would connect the new building with the north façade of the Criminal Courts Building.

None of the architectural resources has sunlight-sensitive features, and the proposed project would not have the potential to result in any shadows impacts on these architectural resources. ✷

Section 4.6: Urban Design and Visual Resources-Manhattan

A. INTRODUCTION

This section considers the potential of the proposed project to affect the urban design and visual resources of the Manhattan site and the surrounding study area. The proposed project requires a zoning text amendment to create a special permit that will govern permitted use, bulk, density, including floor area ratio, parking, and loading for borough jail facilities. The proposed project at the Manhattan Site would require approval of the special permit (created by the zoning text amendment) to modify zoning requirements for bulk, including floor area and height and setback, and loading. In addition, the Manhattan site would require approval of a City Map Change to demap above- and below-grade volumes of White Street between Centre Street and Baxter Street and the reestablishment of White Street with vertical planes, and a Site Selection approval is required for all sites. Collectively, the zoning text amendment, special permit, City Map Change, and Site Selection approval comprise the "proposed actions." The proposed project would redevelop the existing detention facilities on the Manhattan Site with a new approximately 1,270,000 gross-square-foot (gsf) detention facility, associated uses, and parking.

As defined in the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. These components include streets, buildings, visual resources, open spaces, natural resources, and wind. An urban design assessment under CEQR must consider whether and how a project may change the experience of a pedestrian in a project area. *CEQR Technical Manual* guidelines recommend the preparation of a preliminary assessment of urban design and visual resources, followed by a detailed analysis, if warranted based on the conclusions of the preliminary assessment. The following preliminary assessment addresses the urban design and visual resources of the study area for existing conditions, the future without the proposed project (the No Action condition), and the future with the proposed project (the With Action condition) in 2027 when development facilitated by the proposed project is expected to be completed.

PRINCIPAL CONCLUSIONS

The proposed project would not have a significant adverse impact on the surrounding urban design. The 450-foot-tall proposed detention facility would be taller than buildings in the primary study area, including one- to 14-story buildings on Canal Street, 110- to 354-foot-tall stone-clad municipal buildings along Centre Street, and lower density buildings in the Chinatown and Little Italy neighborhoods. However, the detention facility would be similar in height and form to the 224-foot-tall Manhattan Criminal Courts Building (with 354-foot-high tower) at 100 Centre Street located immediately to the south in the primary study area. The proposed detention facility would also be similar in height to taller buildings within three blocks of the project site, including the 584-foot-tall 41-story Jacob K. Javits building at 26 Federal Plaza and the 462-foot-tall U.S. Courthouse at 500 Pearl Street, as well as other taller buildings in the secondary study area, including the approximately 474-foot-tall Ted Weiss Federal Building at 290 Broadway, the

approximately 533-foot-tall building at 7 Thomas Street, and the approximately 552-foot-tall Manhattan Municipal Building at 1 Centre Street. The contemporary materials that are anticipated to be used for the proposed detention facility would be similar to neighboring buildings, such as the Manhattan Civil Court at 111 Centre Street, Jacob K. Javits building, and the hotel at 9 Crosby Street. The glazed ground-story of the proposed building along Baxter Street and Centre Street would maintain the urban design character of the streets in the northern portion of the study area by providing an active and dynamic ground-floor space that is similar to the surrounding buildings that contain ground-floor stores and restaurants. The proposed new detention facility would bridge over White Street, and White Street would continue to serve as a pedestrian passage and would be enhanced with additional street furniture and potential pedestrian entrances to the detention facility.

The study area contains a mixture of building types and size, including the three- to four-story buildings of Little Italy and Chinatown Historic District, the porticoed municipal buildings on Centre Street, and the tall office buildings along Broadway and Worth Street. The proposed detention facility would contribute to the variety of buildings that compose the urban design character of the study area.

The proposed project would not result in a significant adverse impact to visual resources. The proposed project would not affect the characteristics of a visual resource or have the potential to obstruct significant public views of a visual resource. The Criminal Courts Building at 100 Centre Street is a historic building that is a visual resource in the study area; it is located immediately south of the project site and connected to the existing Manhattan Detention Complex (MDC) South Tower (125 White Street) on the project site by a pedestrian bridge and connectors above the service entrance at the former Bayard Street streetbed. The proposed detention facility would include two potential pedestrian bridges connecting the south façade of the proposed building to the third story and an upper story of the Manhattan Criminal Courts Building. The pedestrian bridges would alter the north façade of the Manhattan Criminal Court Building. However, the north façade of the Manhattan Criminal Courts Building is not the building's principal façade, and this façade is also located close to the project site across the narrow service entrance across from 125 White Street so that its north façade is not prominently visible. Principal views of the Manhattan Criminal Courts Building are from the east and west, from Columbus Park and Collect Pond Park. The Manhattan Criminal Courts Building central tower is visible at a distance on Centre Street with the entirety of the building's principal west façade and tower visible from Leonard and Lafayette Streets across Collect Pond Park. Under the With Action condition, these views of the Manhattan Criminal Courts Building would not be impacted.

B. METHODOLOGY

Based on the *CEQR Technical Manual*, a preliminary assessment of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning. Examples include projects that permit the modification of yard, height, and setback requirements, and projects that result in an increase in built floor area beyond what would be allowed "as-of-right" or in the No Action condition. The proposed project would allow for the development of a project that includes physical alterations observable by pedestrians that are not allowed by existing zoning. Therefore, the proposed project meets the threshold for a preliminary assessment of potential impacts to urban design and visual resources.

According to the *CEQR Technical Manual*, the study area for urban design is the area where the project may influence land use patterns and the built environment, and is generally consistent with that used for the land use analysis. For visual resources, the view corridors within the study area from which such resources are publicly viewable should be identified. Consistent with CEQR methodology, the study area for the urban design and visual resources analysis has been defined as the area within a ¼ mile of the project site. Since views to the project site are primarily limited to the immediately surrounding area, the following analysis focuses in more detail on the area within 400 feet of the project site, an area roughly bounded by Canal, Mulberry, Lafayette, and Leonard Streets (see **Figures 4.6-1** and **4.6-2**). Within the larger ¼-mile study area, visibility of the project site is more limited, and potential impacts on urban design and visual resources have also been assessed for this larger area.

The *CEQR Technical Manual* recommends an analysis of pedestrian wind conditions for projects that result in the construction of large buildings at locations that experience high wind conditions. The proposed project would not result in the construction of a building at a location that experiences high wind conditions, thus a pedestrian wind condition analysis is not warranted.

C. EXISTING CONDITIONS

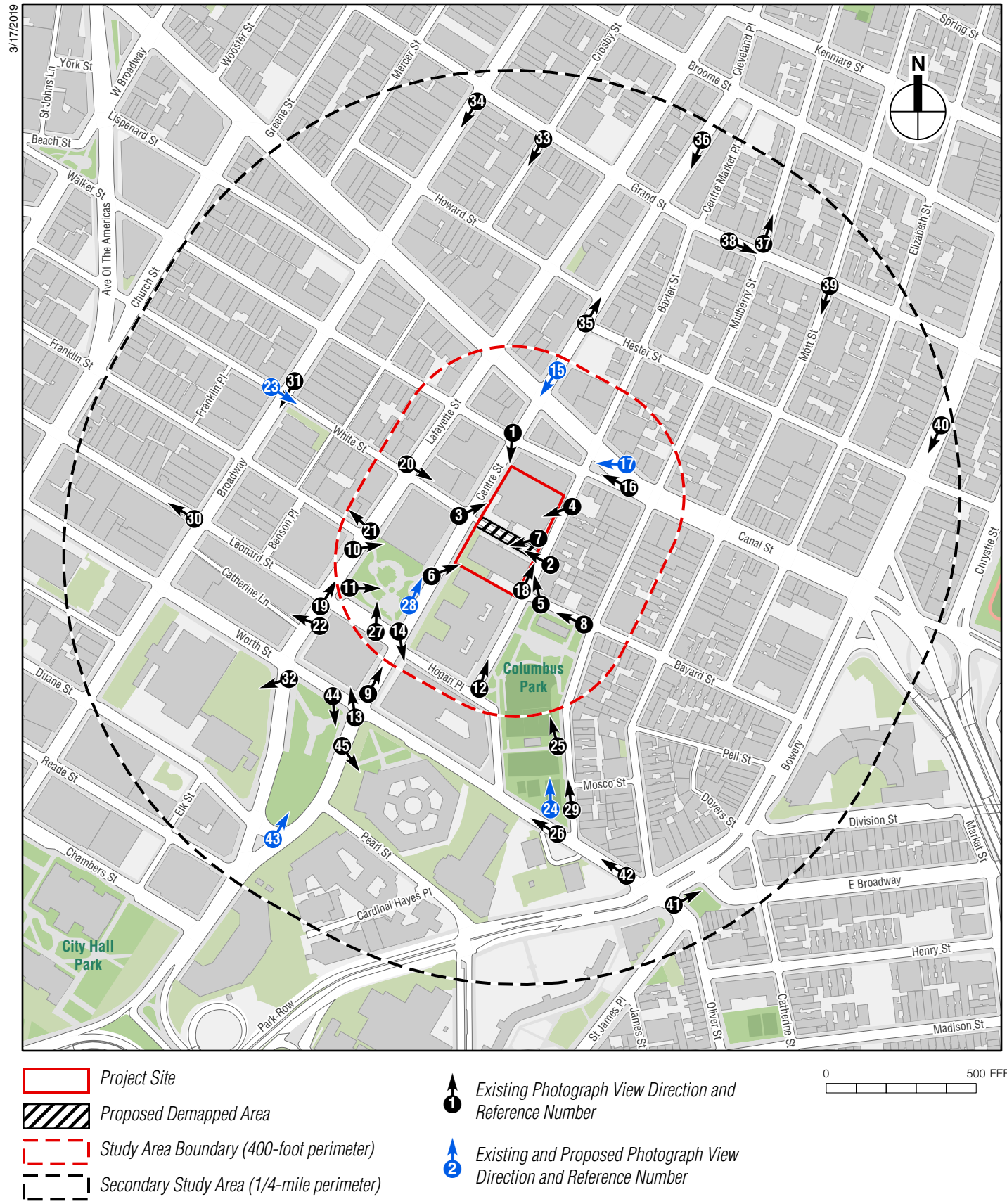
URBAN DESIGN

PROJECT SITE

The project site, located at 124 and 125 White Street (Block 198, Lot 1 and Block 167, Lot 1), contains the approximately 435,000-gsf Manhattan Detention Complex (MDC), which consists of a 14-story North Tower and a 14-story South Tower (see **Figure 4.6-3**, photo 1). The site is bisected by White Street, and bounded by 125 Walker Street to the north, 100 Centre Street to the south, Centre Street to the west, and Baxter Street to the east.

White Street is a 50-foot-wide one-lane street that bisects the site. The street has angled parking on both sides and is paved in octagonal pavers. A one-story enclosed pedestrian bridge crosses White Street at the second story between 124 and 125 White Street. The bridge is clad in stone with glazed sections overlaid with a metal grille. Entrances to the North and South Towers are located beneath the pedestrian bridge on White Street (see **Figure 4.6-3**, photo 2).

The 14-story, approximately 172-foot-tall North Tower is a modern building set on a one- to-two-story stone base (see **Figure 4.6-4**, photo 3). The North Tower occupies the majority of the block, bounded by Centre Street, White Street, Baxter Street, and abutting the south side of 125 Walker Street. The building's approximately two-story base has a square footprint with a projection on Centre Street, and the tower has an L-shaped plan with long frontages along White Street and Centre Street. The building is clad is clad in reddish-pink concrete with narrow, horizontal windows and set on a two-story base that is faced in granite. Also on Centre Street, there is a vertical section that extends up most of the height of the tower that contains windows covered with a grid of metal bars. The principle entrance to the building is recessed on the southwest corner of the building at White and Centre Streets. The top of the tower has a concrete screen that obscures rooftop mechanicals and a rooftop exercise yard. On the west frontage, facing Centre Street, the north portion of the base of the building extends to the sidewalk and has retail uses including a deli and restaurant, and the southern portion of the base sets back from the street behind a raised paved plaza. A sidewalk shed covers the ground floor along Centre Street. A raised pedestrian plaza wraps around the southwest corner of the building and meets the sidewalk; on

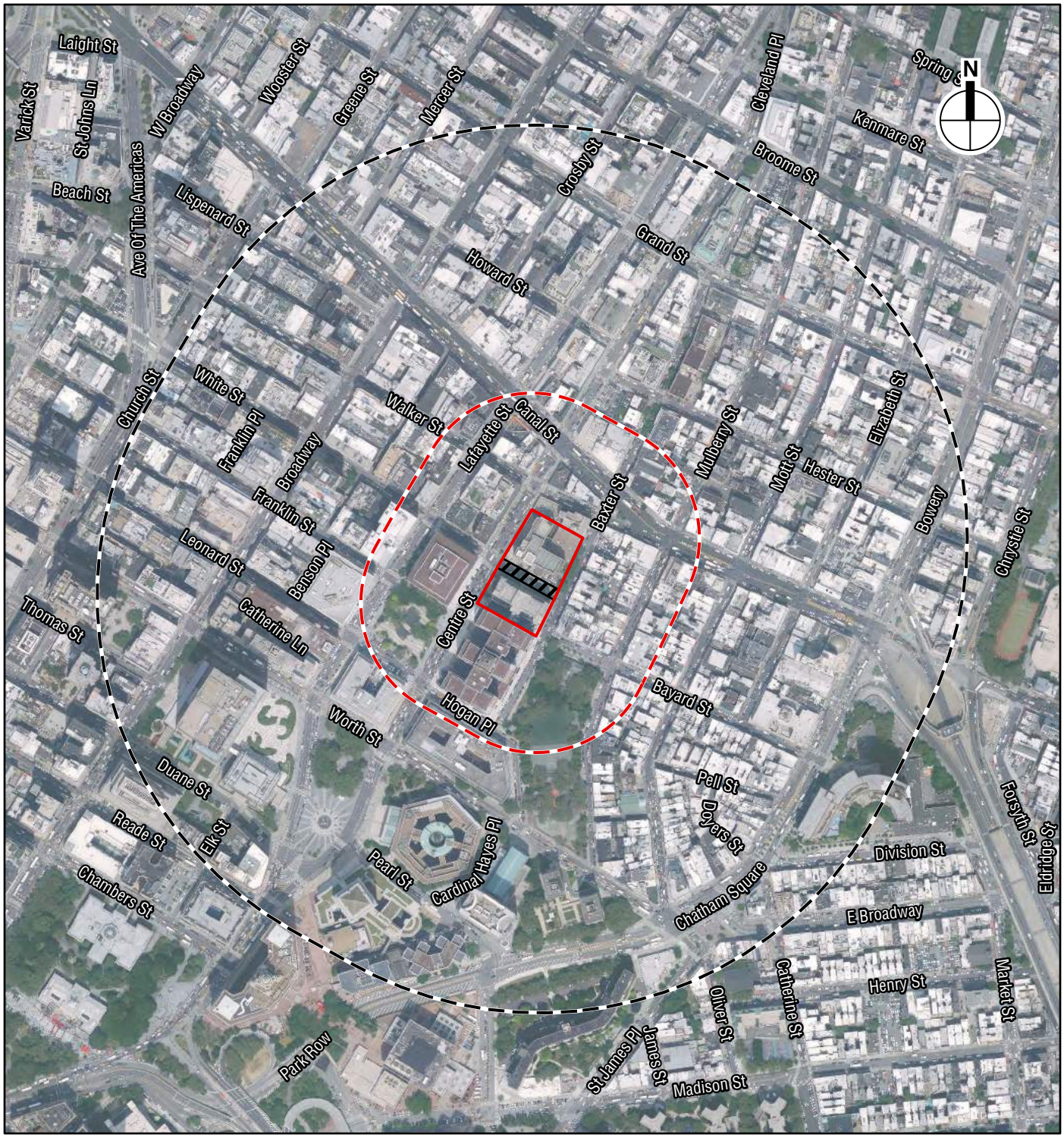


Photograph Locations
Manhattan Site - 124-125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.6-1

3/17/2019



Project Site

Proposed Demapped Area

Primary Study Area (400-foot perimeter)

Secondary Study Area (1/4-mile perimeter)

0 500 FEET

Aerial Map
Manhattan Site - 124-125 White Street

BOROUGH-BASED NYC JAIL SYSTEM

Figure 4.6-2

Centre Street, the edges of the plaza are marked by approximately six free-standing square columns built of metal wire and plexiglass. On White Street, an entrance to the building is located under the pedestrian bridge, and two sallyport entrances are located on the east end of the frontage near Baxter Street. On the building's east façade on Baxter Street, the building has a one- and two-story base that forms a streetwall at the sidewalk, with the ground floor containing a number of restaurants (see **Figure 4.6-4**, photo 4). A sidewalk shed covers the ground floor along Baxter Street. At the second-story level are murals; small, square windows covered with metal grilles are inserted in this portion of the façade.

The 14-story approximately 234-foot-tall South Tower occupies the northern portion of the block, bounded by Centre Street, White Street, and Baxter Street, and the Manhattan Criminal Courts Building at 100 Centre Street. The building has a rectangular footprint, with 11-story streetwalls that meet the sidewalk on Baxter Street, White Street, and Centre Street. The building is clad in granite and limestone with punched windows and metal panel spandrels (see **Figure 4.6-5**, photo 5). A wire cage on the roof encloses the prison's recreation facilities. A sidewalk shed covers the ground floor of the building on Centre Street, Baxter Street, and White Street (see **Figures 4.6-5** and **4.6-6**, photos 6 and 7). On the south side, the building is attached to the Manhattan Criminal Courts Building by a pedestrian bridge at the ninth floor level at the center of the building and second-story connectors on Centre Street and Baxter Streets (see **Figure 4.6-6**, photo 8).

PRIMARY 400-FOOT STUDY AREA

The western and southern portions of the primary study area are characterized by the Civic Centre neighborhood, containing parks and stone-clad buildings that are over nine stories and that occupy entire blocks. East of Baxter and Mulberry Streets, the primary study area is developed typically with narrow four- to five-story brick buildings containing residential units with ground-floor commercial spaces. North of the project site, the study area is developed with mixed-use buildings that range in height from 1 to 26 stories.

The study area has an irregular street grid as the street grid east of Baxter Street is at a slight angle to the grid west of Center Street. In addition, Canal Street extends at an angle west of Mulberry Street, forming a triangular shaped intersection with Walker Street and creating irregular shaped blocks at this junction. Irregular wedge-shaped blocks are located at the junction of Walker Street and Canal Street. Bayard Street terminates at Baxter Street, and White Street is used primarily for parking between Centre Street and Baxter Street (as described above), to form a superblock that includes the project site and the Criminal Courts Building at 100 Centre Street. Additionally, White Street terminates at Baxter Street. Hogan Place terminates at Columbus Park, and Baxter Street and Mulberry Street angle 45-degrees south of Hogan Place and bordering Columbus Park, to form a large irregular-shaped block that contains Columbus Park. Street furniture in the study area includes traffic lights, bus stop signs, trashcans, fire hydrants, bike racks, newspaper boxes, mailboxes, bollards, and streetlights.

Centre Street is 75 feet wide and borders the project site to the west with two lanes of one-way traffic and parking on both sides; it is lined with tall stone-clad buildings, parks, and mixed-use buildings with commercial storefronts (see **Figure 4.6-7**, photo 9). Stone-clad office and court buildings are located on blocks immediately to the west and south of the project site, with their main entrances on Centre Street. West of the project site across Centre Street, the New York City Civil Court at 111 Centre Street is a 12-story, approximately 202-foot-tall office building that has a square footprint. The contemporary building has a one-story base that is clad in polished black stone and upper stories clad in granite including large sections of the façades that are windowless

South view of the project site on Centre Street, showing the existing North Tower and South Towers on the east side of Centre Street **1**

West view of the project site on White Street, currently used for parking and as entries to the North and South Towers **2**

Existing Conditions: Project Site
Manhattan Site - 124-125 White Street

Northwest view of the project site from Centre Street, showing the south and west façades of the North Tower **3**

West view of the project site from Bayard Street, showing the pedestrian bridge linking the South Tower to 100 Centre Street **4**

Existing Conditions: Project Site
Manhattan Site - 124-125 White Street
Figure 4.6-4